ORDER NO. EMID0101001C0

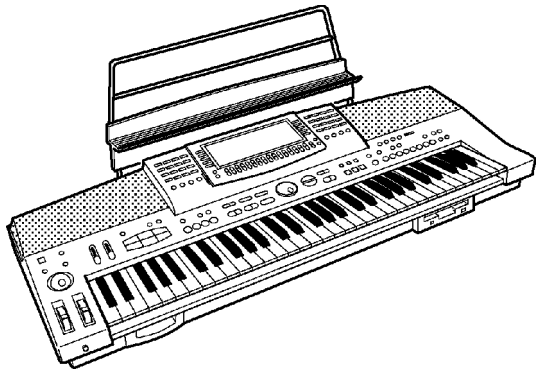
A5

Service Manual

PCM KEYBOARD

SX-KN6500

(P) U.S.A., Mexico
(PC) Canada
(EX) Norway, Sweden, Denmark, Finland, Spain, Portugal, Greece, South Africa
(EH) Holland, Belgium
(EZ) Germany
(EG) Austria, Switzerland, France, Italy
(EB) the United Kingdom
(GN) Australia, New Zealand
(XS) Malaysia, Singapore
(XD) Hong Kong
(XT) Taiwan
(X) Thailand, Indnesia, U.A.E., Panama, Brazil, Philippines
(XA) Argentina



SPECIFICATIONS

SPECIFICATIONS

KEYBOARD	61 KEYS (WITH INITIAL TOUCH)
SOUND GENERATOR	PCM
MAX. POLYPHONY	64 NOTES
SOUNDS	NUMBER OF SOUNDS: 1065 SOUNDS + 36 DRUM KITS + 2 DIGITAL DRAWBARS SOUND GROUP: PIANO, GUITAR, STRINGS & VOCAL, BRASS, MALLET & ORCH PERC, WORLD, ORGAN & ACCORDION,SAX & WOODWIND, PAD , SYNTH, BASS, DRUM KITS, DIGITAL DRAWBAR, ACCORDION REGISTER SOUND EXPLORER: Supported
EFFECT	PART: SUSTAIN, DIGITAL EFFECT, SOUND DSP GLOBAL: REVERB, CHORUS, MULTI, MIC
WHEEL	PITCH BEND, MODULATION
SOUND CONTROLLER	Supported
PART SELECT	RIGHT 1, RIGHT 2, LEFT
TRANSPOSE	2 OCTAVE
RHYTHMS	NUMBER OF RHYTHMS: 200 RHYTHMS × 4 VARIATIONS RHYTHM GROUP: 8 & 16 BEAT, ROCK & POP, BALLAD, SOUL & FUNK, MODERN DANCE, GOSPEL & BLUES, COUNTRY & WESTERN,MARCH & WALTZ, BIG BAND & SWING, JAZZ COMBO, BALL ROOM, ENTERTAINER, MOVIE & SHOW, LATIN & WORLD
FAVORITES	Supported
CONTROLS	MAIN VOLUME, BALANCE, MUTE, CONDUCTOR, START/ STOP, INTRO & ENDING 1, INTRO & ENDING 2, FILL IN 1, FILL IN 2, COUNT INTRO, SYNCHRO&BREAK, TEMPO/ PROGRAM, TAP TEMPO, FADEIN/OUT, SPLIT POINT
PERFORMANCE PADS	20 PRESET BANKS × 6 PADS WITH SOLO USER BANK × 3, COMPILE BANKS × 2, CONTROL PRESET × 1 STOP, AUTO SETTING

AUTO PLAY CHORD	**MODE: ONE FINGER, FINGERED, PIANIST MEMORY, ON BASS, CHORD FINDER, LEFT HOLD**
MUSIC STYLE ARRANGER	**Supported**
SOUND ARRANGER	**Supported**
MUSIC STYLIST	**Supported**
ONE TOUCH PLAY	**Supported**
TECHNI-CHORD	**Supported**
PANEL MEMORY	**13 BANKS × 8, SET, NEXT BANK, BANK VIEW, CUSTOM PANEL**
SEQUENCER	**16 TRACKS**
	RESOLUTION: 1/96 PER BEAT
	STORAGE CAPACITY: APPROX.40000 NOTES (10 SONG MAX.)
	INPUT MODES: EASY RECORD, REALTIME RECORD, STEP RECORD
	FUNCTIONS: RECORD& EDIT, COPY & PASTE,RANGE EDIT
COMPOSER	**8 PARTS: BASS, ACCOMP 1 - 5, DRUMS 1, 2**
	STORAGE CAPACITY: APPROX. 13000 NOTES
	INPUT MODES: EASY COMPOSER, REALTIME RECORD, STEP RECORD
	FUNCTIONS: PATTERN COPY, CUSTOM STYLE COPY, SEQ TO COMPOSERCOPY, LOAD SINGLE COMPOSER
	MEMORY: 3 BANKS
DISK DRIVE	**3.5 inch FLOPPY DISK DRIVE for 2HD (1.44MB), 2DD (720KB)**
	LOAD, SAVE, DIRECT PLAY, SONG MEDLEY, DISK TOOLS, PREFERENCES, STYLE CONVERT, CUSTOM STYLE LOAD/SAVE
SOUND SETTING	**PART SETTING, MIXER, MASTER TUNING, KEY SCALING, TECHNI-CHORD, SOUND LOAD OPTION**
SOUND EDIT	**EASY EDIT, TONE, PITCH, FILTER, AMPLITUDE, LFO, EFFECT, CONTROLLER**
	MEMORY: 40, 1 USER DRUM KIT
REVERB & EFFECT	**MIC REVERB & EFFECT, SOUND LOAD OPTION, ALLOCATION, MIXER, SOUND DSP, MULTI, CHORUS, REVERB, EQUALIZER**

CONTROL	INITIAL, OVERALL TOUCH SENSITIVITY, FOOT CONTROLLERS, PANEL MEMORY MODE, MUSIC STYLE ARRANGER MODE, FADE IN/OUT SETTING
CUSTOMIZE	HOME PAGE SETTING, FAVORITE SETTING, DISPLAY TIME OUT, WALL PAPER SETTING, MIDI SETTING LOAD OPTION, DATA PROTECTION, LANGUAGE SELECT, DISK PREFERENCE
MIDI	PART SETTING, CONTROL MESSAGES, REALTIME MESSAGES, COMMON SETTING, INPUT/OUTPUT SETTING, MIDI PRESETS, MODE SETTING, PROGRAM CHANGE MIDI OUT, PANEL MEMORY OUTPUT, COMPUTER CONNECTION
DISPLAY	LCD
	PAGE, CONTRAST, EXIT, DISPLAY HOLD
HELP	Supported
DEMO	Supported
TERMINALS	PHONES, FOOT SW 1, 2, FOOT CONTROLLER, EXP PEDAL, LINE OUT (R/R+L,L), AUX IN (R/R+L,L), COMPUTER, MIDI (IN, OUT,THRU), MIC
OUTPUT	66 W (18 W × 2 FOR MID/HIGH, 30 W × 1 FOR BASS)
SPEAKERS	12 cm × 2, 6.5 cm × 2 FOR MID/HIGH, 14 cm × 1 FOR BASS
POWER REQUIREMENT	75 W
	AC120/220/240V 50/60 Hz
	AC120V 60 Hz (NORTH AMERICA AND MEXICO)
	AC230-240V 50/60 Hz (EUROPE, AUSTRALIA, NEW ZEALAND, SINGAPORE AND PHILLIPPINES)
DIMENSIONS (W×H×D)	106.3 cm × 20 cm × 41.8 cm (41-27/32" × 7-7/8" × 16-15/32")
NET WEIGHT	15.4 kg (34 lbs)
ACCESSORIES	AC CORD, MUSIC STAND, STYLE CONVERT DISK, INITIAL DATA DISK

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

1. Warning

To prevent the risk of fire, smoke, or electrical shock and to ensure safe operation, please be sure to follow the safety guidelines below.

1. **At places where special caution is required, the necessary safety precautions are clearly labeled or printed, for example, on the cabinet, or on the part concerned. Please follow these safety precautions, and also those listed in the Owner'sManual.**
2. **Parts which have a ⚠ ; mark in the circuit diagram or in the parts list are essential for safety. When replacing these parts, be sure to use onlythe specified parts.**
3. **Use the specified types for internal wiring (double-insulated wiring, etc.).**
4. **When replacing parts on the AC primary side (power transformer, electric switch, electrical cord, noise-prevention condenser, etc.), wind the lead wire and secure it by soldering.**
5. **Do not let the wiring come into contact with heat-emitting devices (fuse resistor, radiator plate, etc.).**
6. **When replacing the wiring, make sure that it is not in contact with the unfinished or rough edge of a part.**
7. **When replacing the power cord (except for the plug-in type), tug it from various directions to confirm that it does not slip out of place.**
8. **Spacing**
   If soldering was done on the AC primary circuit, confirm that the interval between the soldered terminals or between the terminal and surrounding metallic parts is at least the minimum required (between the primary circuit and the chassis: atleast 6.5 mm; between primary circuit terminals: at least 4.0 mm; between primary circuit terminals and secondary circuit terminals: at least 6.5 mm.).

2. Safety Precaution

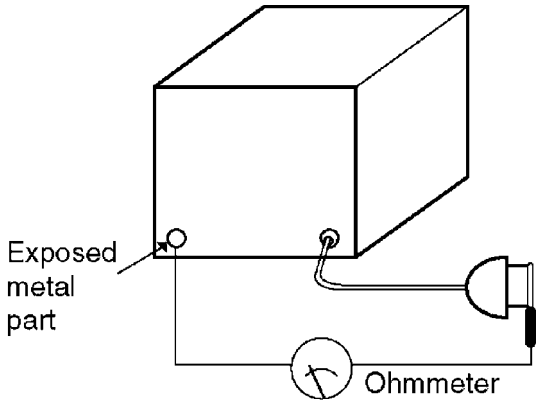
2.1. Safety Precaution

1. **Before servicing, unplug the power cord to prevent an electric shock.**
2. **When replacing parts, use only the manufacturer's recommended components for safety.**
3. **Check the condition of the power cord. Replace if wear or damage is evident.**
4. **After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.**
5. **Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.**

2.2. Insulation Resistance Test

1. **Unplug the power cord and short the prongs of the plug with a jumper wire.**
2. **Turn on the power switch.**
3. **Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screw heads, connectors, control shafts, handle brackets, etc. Measurements should range from 4 MOhm to infinity for allexposed parts. (refer to Fig.1)**

Fig.1



Resistance = 4MΩ to ∞

3. Controls and Functions

4. Initialize

5. Connections

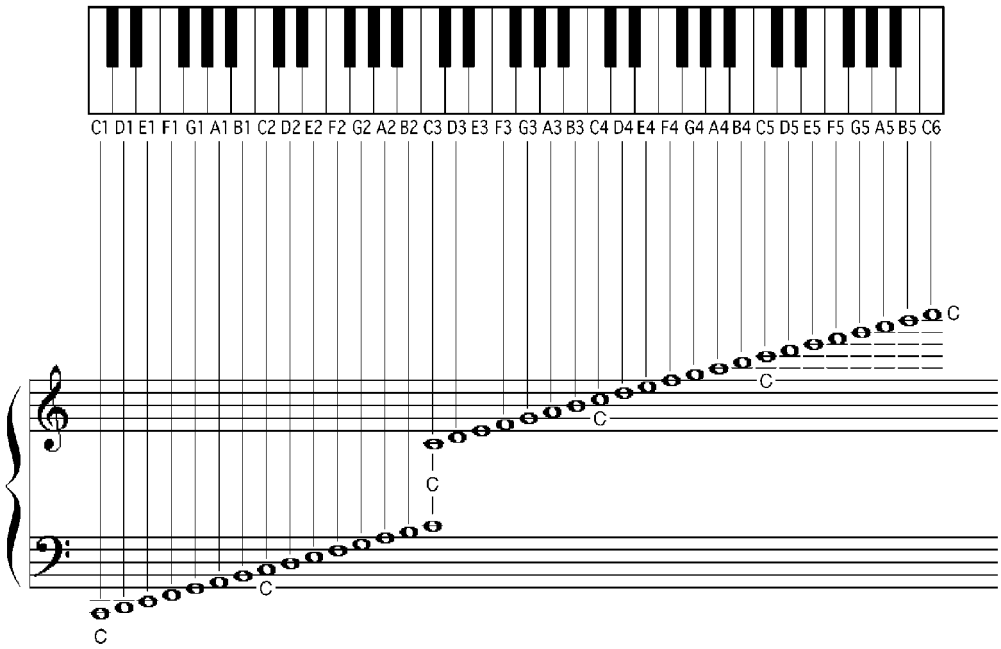
6. Symptoms which Appear to be Signs of Trouble

7. Error Messages

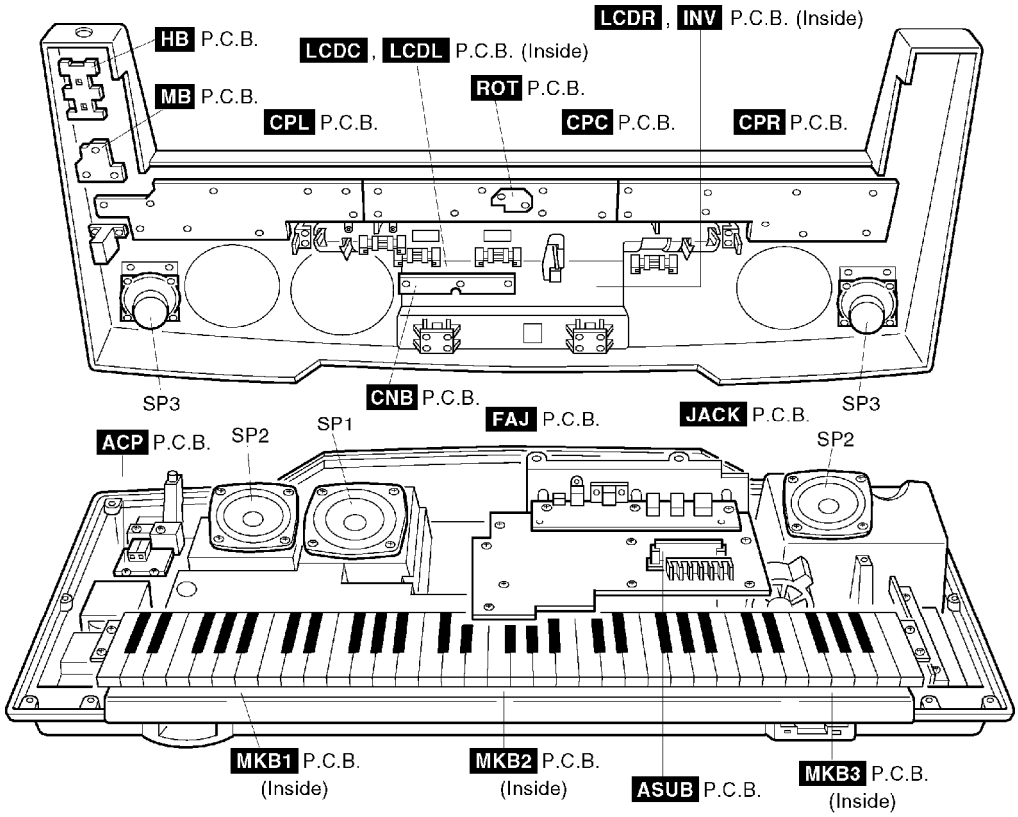
8. MIDI Implementation Chart

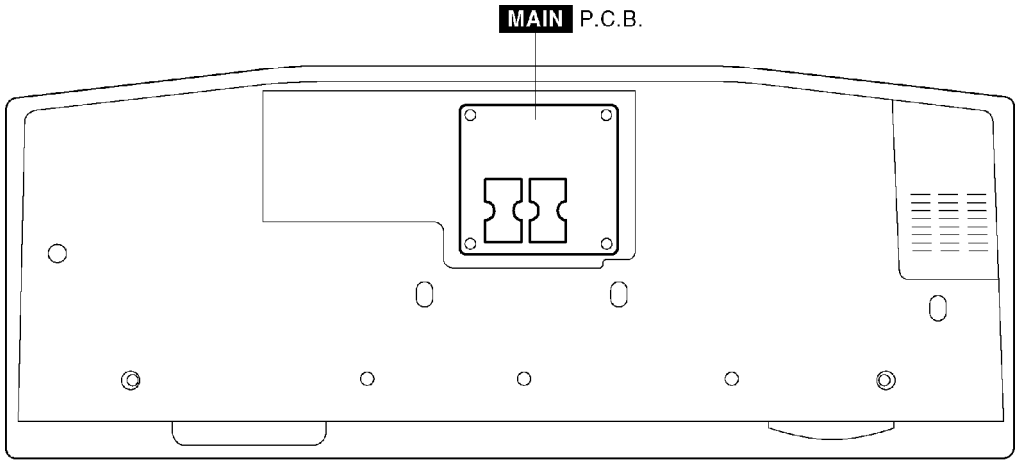
9. Keyboard Ranges

This keyboard features Touch Response, by which you control the volume by playing the keys harder or softer.



10. Parts Location





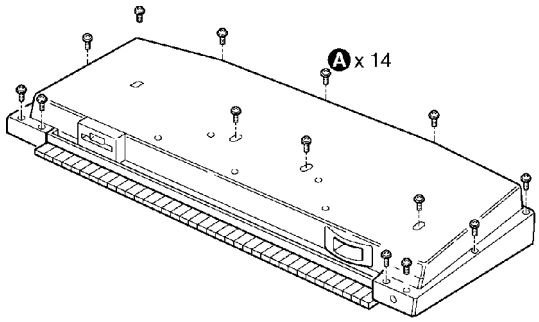
11. Disassembly Instructions

11.1. Opening the top cabinet

1. Turn the keyboard cabinet upside down, and remove the bottom screws (Ⓐ 14 pcs.) as shown in Fig.2 .

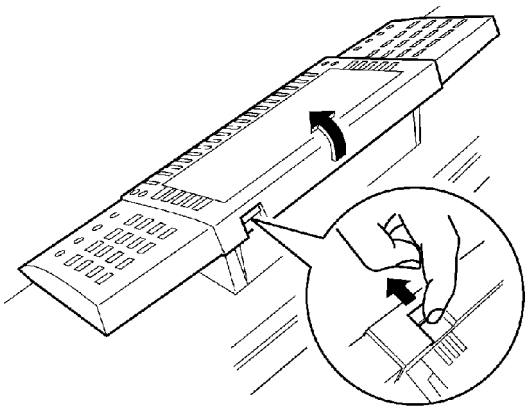
2. Place the keyboard bottomside down, and open the top cabinet .

Fig.2



- Pull the Display Angle Lever upward and swivel the display as shown in Fig.3 . Then you can keep the top cabinet upright using the display as a stand.

Fig.3



11.2. Removing the HB, MB, CPL, ROT, CPC, CPR, CNB, ACP, FAJ, JACK, ASUB printed circuit boards

- Follow the item 11.1..
- Pull out the connectors on the printed circuit boards.

HB P.C.B.

- Remove the HB P.C.B. mounting screws (Ⓐ 2 pcs.) as shown in Fig.4 .

MB P.C.B.

- Remove the MB P.C.B. mounting screws (Ⓑ 3 pcs.) as shown in Fig.4 .

CPL P.C.B.

1. Pull off the MAIN VOLUME knob and APC/SEQUENCER VOLUME knob as shown in Fig.4 .
2. Remove the CPL P.C.B. mounting screws (Ⓒ 9 pcs.) as shown in Fig.4 .

ROT P.C.B. and CPC P.C.B.

1. Pull off the TEMPO/PROGRAM dial as shown in Fig.4 .
2. Remove the ROT P.C.B. mounting screws (Ⓔ 2 pcs.) as shown in Fig.4 .
3. Remove the CPC P.C.B. mounting screws (Ⓓ 7 pcs.) as shown in Fig.4 .

CPR P.C.B.

- Remove the CPR. P.C.B. mounting screws (Ⓕ 9 pcs.) as shown in Fig.4 .

CNB P.C.B.

- Remove the CNB P.C.B. mounting screws (Ⓖ 3 pcs.) as shown in

Fig.4 .

ACP P.C.B.

- Remove the ACP P.C.B. mounting screws (Ⓗ 4 pcs.) as shown in Fig.4 .

FAJ P.C.B.

- Remove the FAJ P.C.B. mounting screws (Ⓛ 8 pcs.) as shown in Fig.4 .

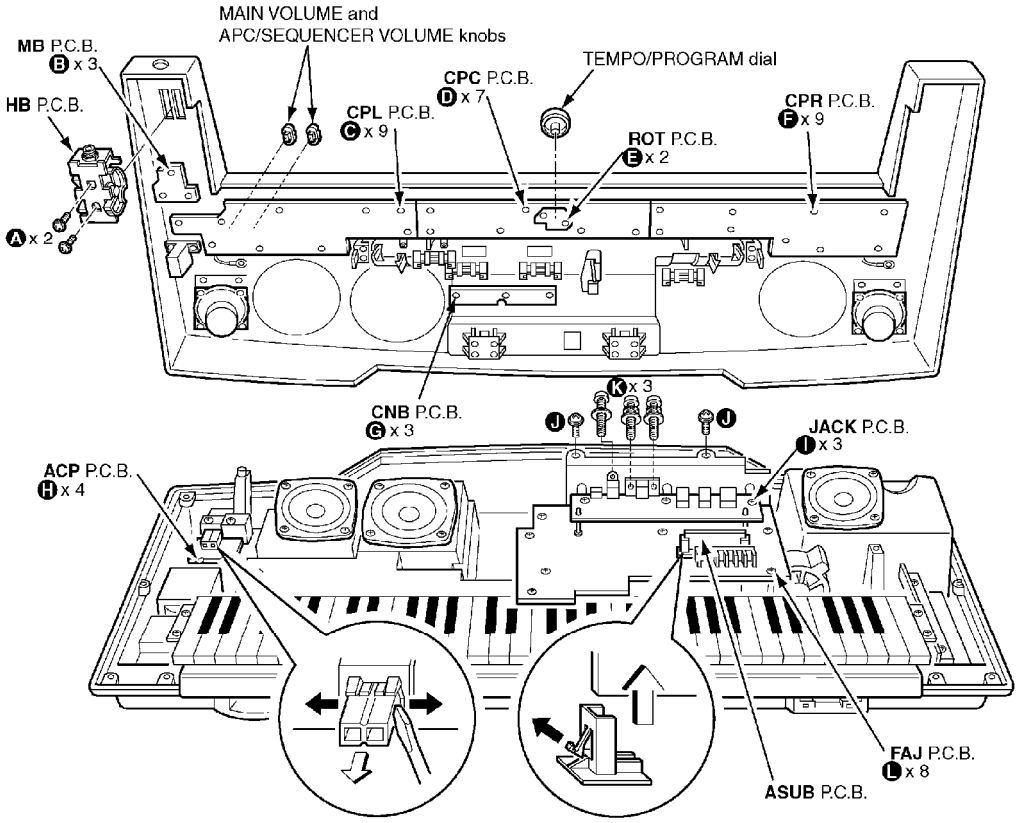
JACK P.C.B.

- Remove the JACK P.C.B. mounting screws (Ⓘ 3 pcs., Ⓙ 2 pcs. and Ⓚ 3 pcs.) as shown in Fig.4 .

ASUB P.C.B.

- Release the claws and pull off the ASUB P.C.B. as shown in Fig.4 .

Fig.4

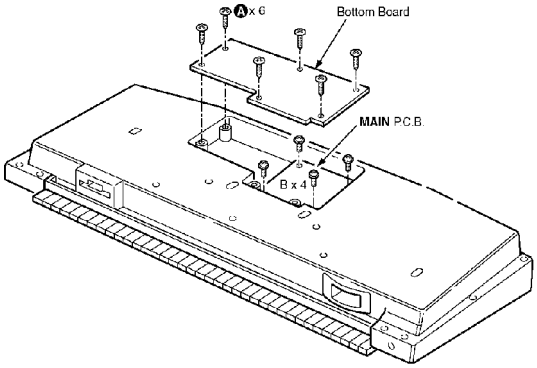


11.3. Removing the MAIN printed circuit board

MAIN P.C.B.

1. Remove the bottom board mounting screws (Ⓐ 6 pcs.) as shown in Fig.5 .
2. Remove the MAIN P.C.B. mounting screws (Ⓑ 4 pcs.) as shown in Fig.5 .

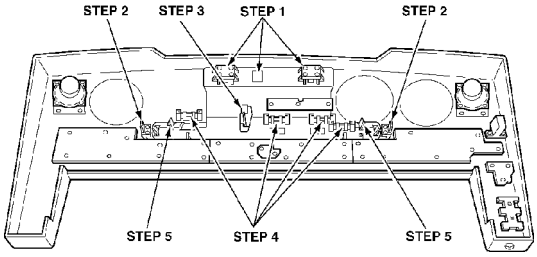
Fig.5



11.4. Removing the DISPLAY

- Follow the item 11.1..
- Pull out the connectors on the DISPLAY panel.

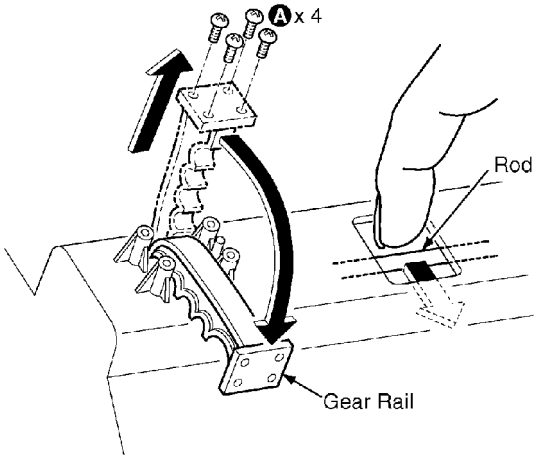
Fig.6



STEP 1: Removing the gear rails

1. Remove the gear rail mounting screws (Ⓐ 8 pcs.) as shown in Fig.6 and Fig.7 .
2. While pulling the rod to release it from the gear rail, pull the gear rail.

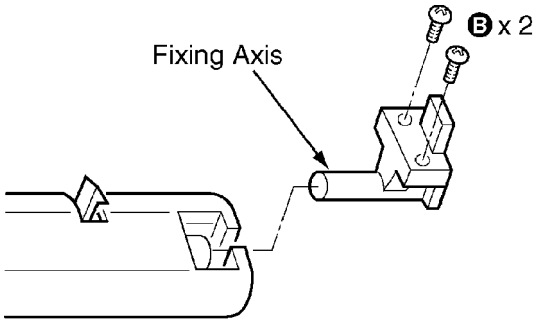
Fig.7



STEP 2: Removing the fixing axes

- Remove the fixing axis mounting screws (Ⓑ 2 pcs.) as shown in Fig.8 .

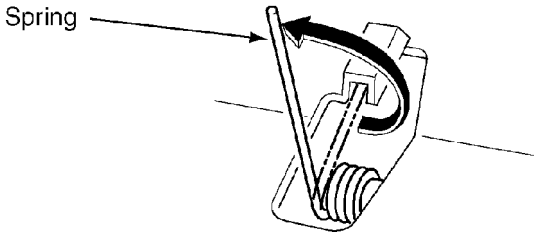
Fig.8



STEP 3: Releasing the spring

- Release the spring as shown in Fig.9 .

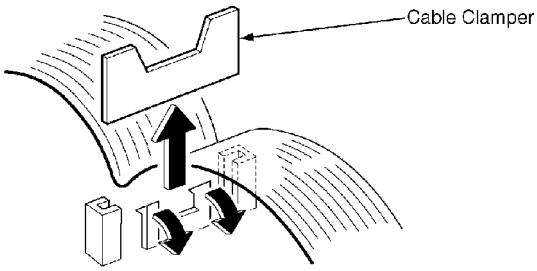
Fig.9



STEP 4: Removing the cable clamper

- Release the claws and pull off the cable calmper as shown in Fig.10 .

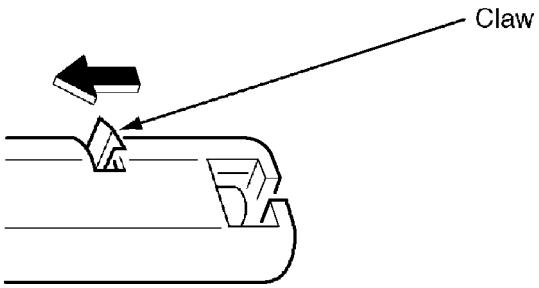
Fig.10



STEP 5: Releasing the claws

- Release the claw as shown in Fig.11 .

Fig.11

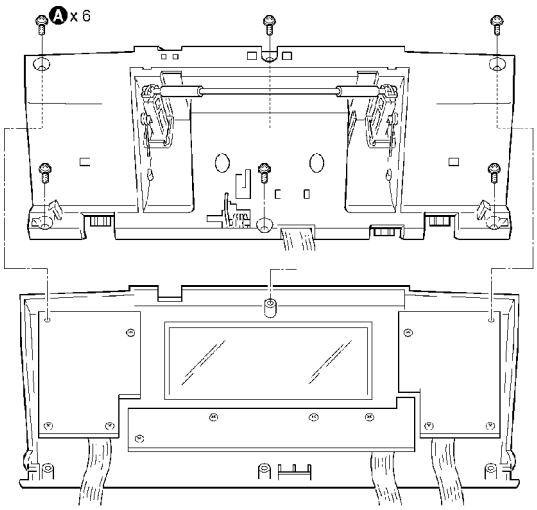


- The DISPAY can be removed from the top cabinet.

11.5. Removing the DISPLAY panel

1. Follow the item 11.4..
2. Remove the DISPLAY panel mounting screws (Ⓐ 6 pcs.) as shown in Fig.12 .

Fig.12



11.6. Removing the LCDL, LCDC and LCDR printed circuit boards

- Follow the item 11.5..

LCDL P.C.B.

- Remove the LCDL P.C.B. mounting screws (Ⓐ 3 pcs.) as shown in Fig.13 .

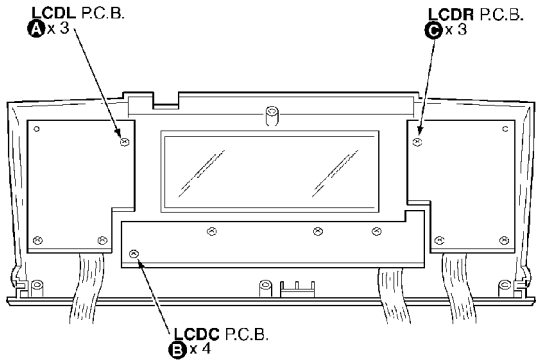
LCDC P.C.B.

- Remove the LCDC P.C.B. mounting screws (Ⓑ 4 pcs.) as shown in Fig.13 .

LCDR P.C.B.

- Remove the LCDR P.C.B. mounting screws (Ⓒ 3 pcs.) as shown in Fig.13 .

Fig.13



11.7. Removing the LCD and the INV P.C.B.

- Follow the item 11.5..

LCD

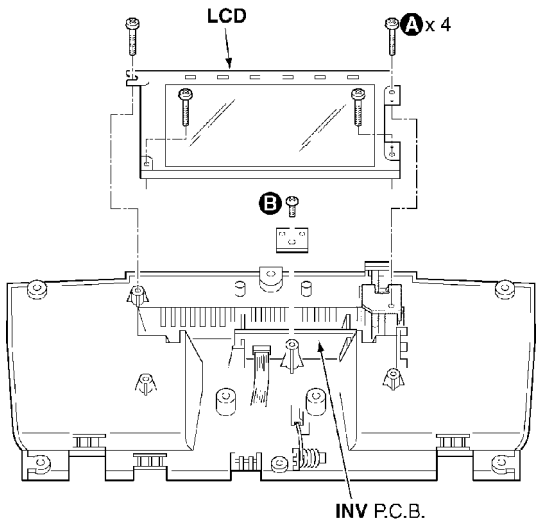
- Remove the LCD mounting screws (Ⓐ 4 pcs.) as shown in Fig.14 .

INV P.C.B.

1. Remove the bracket mounting screw (Ⓑ 1 pc.) as shown in Fig.14 .

2. Pull off the INV P.C.B..

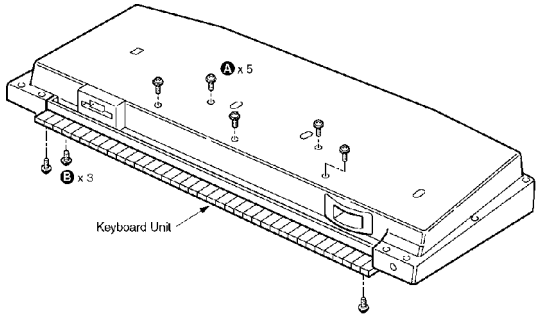
Fig.14



11.8. Removing the keyboard unit

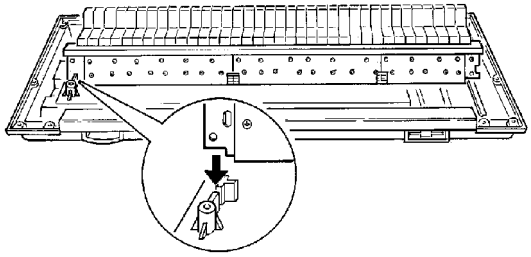
1. Follow the item 11.1..
2. Remove the keyboard unit mounting screws (Ⓐ 5 pcs.) as shown in Fig.15 .
3. Place the keyboard cabinet bottomside down, and open the top cabinet.
4. Remove the keyboard unit holding screws (Ⓑ 3 pcs.).

Fig.15



- As shown in Fig.16 , the keyboard unit can be anchored in the metal projection.

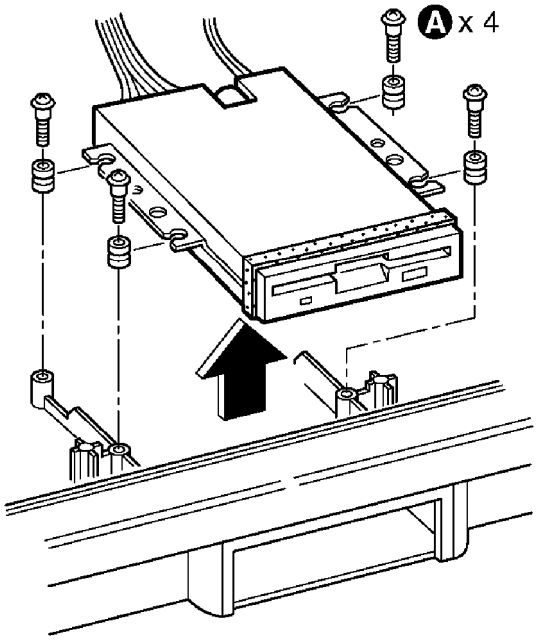
Fig.16



11.9. Removing the Disk Drive Unit

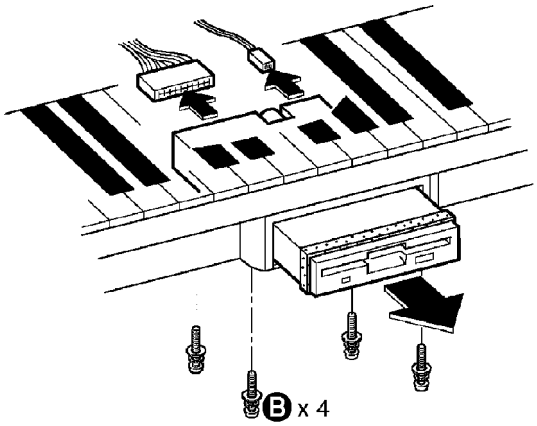
1. Follow the item 11.8..
2. Remove the Disk Drive unit mounting screws (Ⓐ 4 pcs.) as shown in Fig.17 .

Fig.17



- Otherwise, the Disk Drive unit can be removed by removing the Disk Drive unit mountng screws (B 4 pcs.) as shown in Fig.18 .

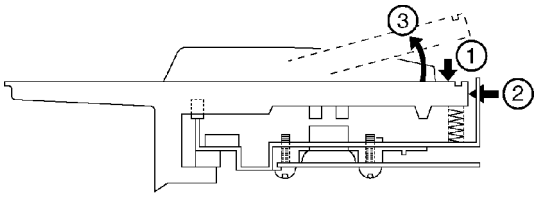
Fig.18



11.10. Removing the keys

1. **Follow the item 11.8..**
2. **Press downward on the rear of the key as shown in Fig.19 .**
3. **While pressing downward on the rear of the key, push the key forward and release it from the chassis.**
4. **Lift the key and remove it from the chassis.**

Fig.19



NOTE:
To remove a black key, the white key to either side of it should be removed first.

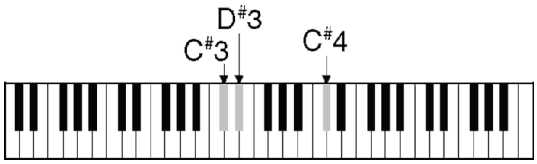
12. Service Diagnostic Function

The service diagnostic function makes it possible to determine whether the various test modes pass or fail. The test modes are completely independent of one another. Select a test mode as necessary, and run the test.

To set to the service diagnostic mode:

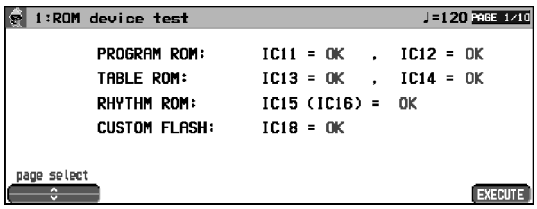
1. **Press and hold the C#3, D#3, C#4 keys, and then turn on the power switch. (refer to Fig.20)**

Fig.20



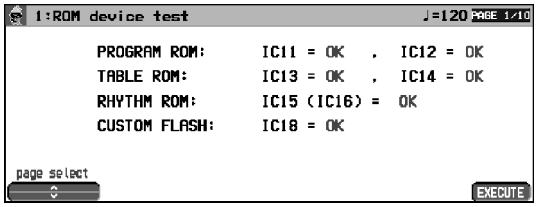
2. **After the service diagnostic screen is displayed on the LCD, release the three keys. (refer to Fig.21)**
3. **Use the corresponding buttons below the “page select” display to select the respective test.**

Fig.21


1:ROM device test
♩=120
PAGE 1/10
PROGRAM ROM: IC11 = OK , IC12 = OK
TABLE ROM: IC13 = OK , IC14 = OK
RHYTHM ROM: IC15 (IC16) = OK
CUSTOM FLASH: IC18 = OK
page select
EXECUTE

12.1. ROM device test

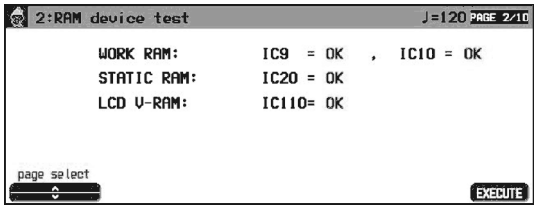
Fig.22


1:ROM device test
♩=120
PAGE 1/10
PROGRAM ROM: IC11 = OK , IC12 = OK
TABLE ROM: IC13 = OK , IC14 = OK
RHYTHM ROM: IC15 (IC16) = OK
CUSTOM FLASH: IC18 = OK
page select
EXECUTE

- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed within twenty seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the causeof the failure. (refer to Fig.22)

12.2. RAM device test

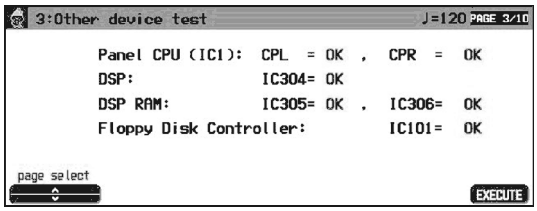
Fig.23



- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed within few seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause ofthe failure. (refer to Fig.23)

12.3. Other device test

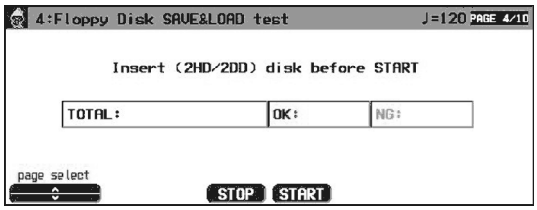
Fig.24



- Press the EXECUTE button to begin the test.
- The test result (OK or NG) is displayed witin few seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the cause of thefailure. (refer to Fig.24)

12.4. Floppy Disk SAVE/LOAD test

Fig.25

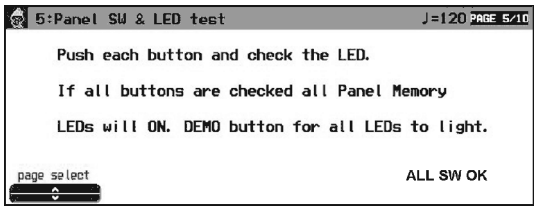


- Insert a formatted floppy disk into the Disk Drive. Press the START button to begin the test.

- The test is carried out repeatedly. Data is saved and loaded, and then the two data sets are compared. The number of times that the test results in OK or NG are counted and displayed on the LCD. To interrupt the test, press the STOP button.(refer to Fig.25)
- Even when the Floppy Disk Drive is functioning properly, the test can result in NG. If this happens frequently, clean the magnetic heads of the Floppy Disk Drive with a cleaning disk. Then, change the disk used in testing with another disk andreperform the test. If the trouble is not solved, it is likely that the Disk Drive unit or some other part of the hardware is broken.

12.5. Panel SW & LED test

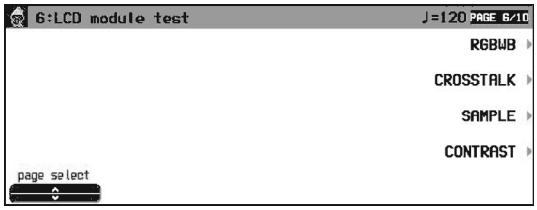
Fig.26


5:Panel SW & LED test
♩=120
PAGE 5/10
Push each button and check the LED.
If all buttons are checked all Panel Memory
LEDs will ON. DEMO button for all LEDs to light.
page select
ALL SW OK

- Press all the buttons on the Control Panel and confirm that the corresponding LED lights.
- If an LED fails to light, the cause may be a defective switch or a break in the surrounding circuit, etc.
- After all the buttons have been pressed, all the PANEL MEMORY LEDs light. If all switches are OK, “ALL SW OK” is shown on the LCD. (If a switch is defective, nothing is shown.) (refer to Fig.26)
- To light all the LEDs, press and hold the DEMO button. If an LED fails to light, the LED may be defective or there may be a break in the surrounding circuit.

12.6. LCD module test (LCD adjustment and confirmation)

Fig.27



- Press the RGBWB, CROSSTALK, SAMPLE or CONTRAST button to begin the respective test. (refer to Fig.27)

RGBWB:

All the dots light red, green, blue, white, and finally black. The display can be held by pressing the DISPLAY HOLD button.

CROSSTALK:

An H pattern is shown. LCD crosstalk can be evaluated. To exit this test, press the EXIT button.

SAMPLE:

Several display patterns shown during normal use are shown. The display can be held by pressing the DISPLAY HOLD button.

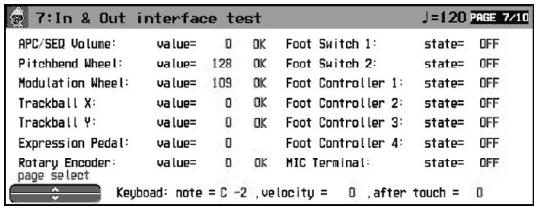
CONTRAST:

The test pattern is shown. Adjust the contrast by the CONTRAST control on the left of the LCD. To exit this test, press the EXIT button.

- If the correct display is not shown during these tests, the LCD or LCD drive circuit may be defective.

12.7. In & Out interface test

Fig.28


7:In & Out interface test
♩=120
PAGE 7/10
APC/SEQ Volume: value= 0 OK
Pitchbend Wheel: value= 128 OK
Modulation Wheel: value= 109 OK
Trackball X: value= 0 OK
Trackball Y: value= 0 OK
Expression Pedal: value= 0
Rotary Encoder: value= 0 OK
page select
Foot Switch 1: state= OFF
Foot Switch 2: state= OFF
Foot Controller 1: state= OFF
Foot Controller 2: state= OFF
Foot Controller 3: state= OFF
Foot Controller 4: state= OFF
MIC Terminal: state= OFF
Keyboad: note = C -2 ,velocity = 0 ,after touch = 0

- The operation status of each input action part can be confirmed. If the part is operating properly, “OK” is shown, excluding the Expression Pedal. (refer to Fig.28)

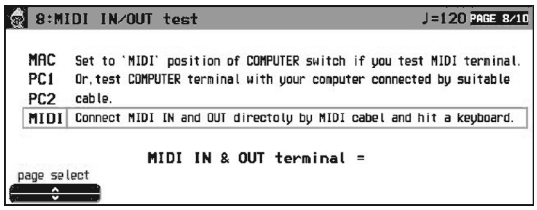
- When a keyboard key is pressed, the corresponding pitch and velocity aftertouch is displayed (only as long as the key is depressed).

- The respective statuses for other input action parts are displayed. (Analog parts are shown as numerical values from 0 to 255, and switches are shown as ON or OFF.)

- If the display fails to change when the part is operated, or if the change is abnormal, it may indicate a defective part.

12.8. MIDI IN/OUT test

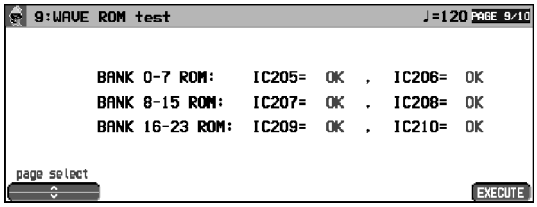
Fig.29


8:MIDI IN/OUT test
♩=120
PAGE 8/10
MAC
PC1
PC2
Set to 'MIDI' position of COMPUTER switch if you test MIDI terminal.
Or,test COMPUTER terminal with your computer connected by suitable cable.
MIDI
Connect MIDI IN and OUT directoly by MIDI cabel and hit a keyboard.
MIDI IN & OUT terminal =
page select

- First, set the COMPUTER terminal switch to MIDI.
- Use a MIDI cable to directly connect the MIDI IN and MIDI OUT terminals.
- When a keyboard key is pressed, the transmitted and received data are compared and the MIDI terminal operation is indicated as being OK or NG. (refer to Fig.29)
- If NG is shown, check both the IN and OUT terminals, as well as the circuit.

12.9. WAVE ROM test

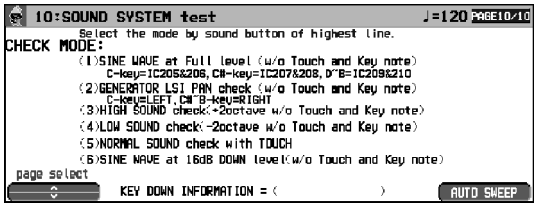
Fig.30


9:WAVE ROM test
♩=120
PAGE 9/10
BANK 0-7 ROM: IC205= OK , IC206= OK
BANK 8-15 ROM: IC207= OK , IC208= OK
BANK 16-23 ROM: IC209= OK , IC210= OK
page select
EXECUTE

- Press the EXECUTE button to start the test.
- The test result (OK or NG) is displayed within thirty seconds. If the test result is NG, not only the respective IC, but a break or short circuit in the ADDRESS/DATA BUS as well as in any of the strobe signal lines may be the causeof the failure. (refer to Fig.30)

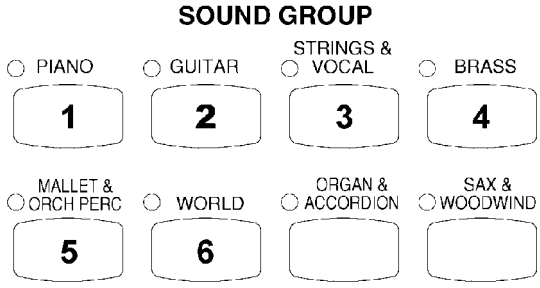
12.10. SOUND SYSTEM test

Fig.31


10:SOUND SYSTEM test
♩=120
PAGE10/10
Select the mode by sound button of highest line.
CHECK MODE:
(1)SINE WAVE at Full level (w/o Touch and Key note)
C-key=IC205&208, C#-key=IC207&208, D~B=IC209&210
(2)GENERATOR LSI PAN check (w/o Touch and Key note)
C-key=LEFT, C#~B-key=RIGHT
(3)HIGH SOUND check(+2octave w/o Touch and Key note)
(4)LOW SOUND check(-2octave w/o Touch and Key note)
(5)NORMAL SOUND check with TOUCH
(6)SINE WAVE at 16dB DOWN level(w/o Touch and Key note)
page select
KEY DOWN INFORMATION = ( )
AUTO SWEEP

- Use the button in the SOUND GROUP to select an item from 1 to 6 (refer to Fig.31 and Fig.32). Press a keyboard key.

Fig.32



1. **Generate a full amplitude sine wave in the pitch of each key. (No touch, fixed stereo center).**
   If no sound is generated or if the sound is distorted, the sound generator ROM corresponding to the key position is defective.
2. **For confirming the output pathway from the sound generator. (Fixed scale, no touch)**
   The Lch and Rch sound outputs are confirmed separately.
3. **Generate a full amplitude sine wave in the pitch of each key +2 octaves. (No touch, fixed stereo center)**
   By generating a sound frequency outside the normal keyboard zone, you can confirm whether or not there is an abnormality in the sound output frequency zone.
4. **Generates a full amplitude sine wave in the pitch of each key -2 octaves. (No touch, fixed stereo center)**
   By generating a sound frequency outside the normal keyboard zone, you can confirm whether or not there is an abnormality in the sound output frequency zone.
5. **Generate a sine wave in the pitch of each key with touch.**
   You can confirm if the volume changes depending on the touch.
6. **Generate a full amplitude sine wave in the pitch of each key at a -16 dB volume. (No touch, fixed stereo center)**
   You can confirm the same sound output as in 1, at a lower volume.

13. Precautions before Servicing the Main Circuit

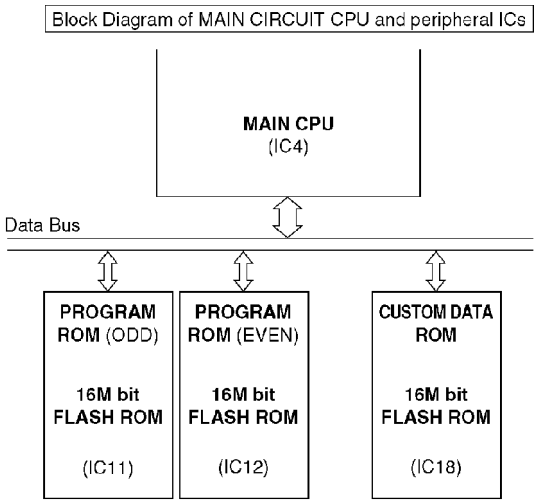
This model employs a FLASH ROM (EEPROM) for the PROGRAM ROMs and the CUSTOM DATA ROM. If changing any of these ICs, service the MAIN CIRCUIT as explained here following.

13.1. About the FLASH ROM

The FLASH ROM can be electrically erased and rewritten. This model is designed so that the repair technician can easily write and change programs and data in the FLASH ROM, by using a

floppy disk. (refer to Fig.33)

Fig.33



* FLASH ROM contents
IC11: MAIN CPU program (ODD)
IC12: MAIN CPU program (EVEN)
IC18: RHYTHM & ACCOMP data for the RHYTHM GROUP/CUSTOM function

13.2. Notes on replacing FLASH ROMs

The replacement parts include a FLASH ROM with a available memory and the PROGRAM DISKs which contains the program to be written into the PROGRAM ROMs. After replacing the PROGRAM ROM, always write the program into it from the PROGRAM DISKs includedin the replacement parts. For details on programming, see "After replacing the PROGRAM ROM (IC11/ IC12) " .

The CUSTOM DATA ROM stores RHYTHM & ACCOMP data for the RHYTHM GROUP/CUSTOM function. The initial RHYTHM & ACCOMP data is factory-set in the CUSTOM DATA ROM at the time of shipping. The CUSTOM DATA ROM can also store COMPOSERdata that the user creates. However, user-data is lost when the CUSTOM DATA ROM is replaced. After replacing the CUSTOM DATA ROM, default the data in it with the INITIAL DATA DISK attached to this product. For details on defaulting, see "After replacing the CUSTOM DATA ROM (IC18) ".

13.3. About the replacement parts

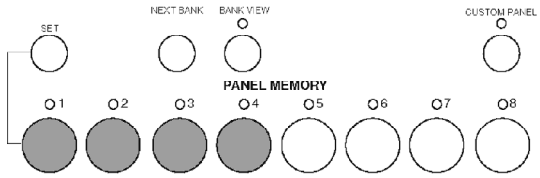
The same FLASH ROM with a available memory can be used for the PROGRAM ROMs (IC11/IC12). Moreover, the included PROGRAM DISKs contains all programs. Therefore, the replacement parts can be used for IC11 and IC12.

13.4. How to write program/data into FLASH ROMs

13.4.1. After replacing the PROGRAM ROM (IC11/IC12)

1. **Set the PROGRAM DISK 1 included in the replacement parts into the Floppy Disk Drive.**
2. **Hold down the PANEL MEMORY buttons 1 , 2 , 3 and 4. And turn on the power switch. (refer to Fig.34)**

Fig.34



3. Check “Flash Memory Update” is displayed on the LCD, and release the PANEL MEMORY buttons.
   The program will be written into the FLASH ROM automatically. Replace the floppy disk when instructed.
4. When the operation is complete, “Completed!!” will be displayed on the LCD.
5. Turn the power switch off and then back on again. Check the instrument is functioning properly.

13.4.2. After replacing the CUSTOM DATA ROM (IC18)

1. With the normal display displayed on the LCD, set the INITIAL DATA DISK included with the model into the Floppy Disk Drive. The normal display automatically changes to the DISK MENU display.
2. Select “LOAD” to change to the file select display.
3. Move the highlighting cursor to “CTMINI” in “No. 01” and select “LOAD”.
   “PLEASE WAIT...” will appear on the LCD and the model will start defaulting data in the CUSTOM DATA ROM.
4. When the operation is complete, “Completed!!” will be displayed on the LCD.
5. Turn the power switch off and then back on again. Check the instrument is functioning properly.

14. Measurements and Adjustments

ADJUSTMENT	MEASURING CONDITIONS	EQUIPMENT	ADJUSTMENT P.C.B.	ADJ. POINT	CONNECT METER TO	
AFTER TOUCH SENSOR Sensitivity	any position	Oscilloscope	MKB3 P.C.B.	VR1	CN11-3pin	6.
	1. Press one of the any keys hardly and check the CN11-3 pin voltage. The voltage will increase and become steady. 2. Adjust the voltage to 6.0V with VR1 at that time.					

15. Precautions before Servicing

15.1. Precautions for measuring of the output waveforms

1. The waveform was measured with a “National Digital Storage Oscilloscope VP-5730A”. Therefore the waveforms of musical tone signals shown may differ somewhat due to the difference in the timing of triggering.
2. Since the 1/10 test probe is used, the indicated voltage value on the bottom part of each waveform illustration is 1/10 of the actual value (e.g. 0.2 V/cm should be 2.0 V/cm).
3. To measure the waveforms, first set this unit to the service diagnostic mode (refer to “WAVE ROM test ”). The WAVE ROM output will then be output as a sine wave to facilitate the servicingcheck.

15.2. Important safety notice

- Components identified by a ⚠ mark have special characteristics impotant for safety.
- When replacing any of these components, use only manufacture’s specified parts.

15.3. Symbolic Marks

The symbolic marks for resistors and capacitors which used in this circuits are classified as following Table-1 and Table-2 .

15.3.1. RESISTORS

- Resistors without symbolic mark are FIXED CARBON FILM RESISTORS (ERD-type).
- All resistors are 1/4 WATT, ±5 % TOLERANCE unless otherwise designated in schematic diagrams.

Table-1

SYMBOL	SPECIFICATION
F	Fixed Carbon Film Resistors “FLAME-PROOF” (ERD—F—type)
F	Fixed Wire Wound Resistors “FLAME-PROOF” (ERF—type)
F	Fixed Metal Oxide Film Resistors “FLAME-PROOF” (ERG—type)
F	Fixed Metal Film Resistors “FLAME-PROOF” (ERX—type)
G	Fixed Metal Film Resistors (Precision and High Stability) (ERO—type)
F	Fuse Type Fixed Metal Oxide Film Resistors “FLAME-PROOF” (ERQ—type)
F	Fuse Type Fixed Carbon Film Resistors “FLAME-PROOF” (ERD2FC—type)

15.3.2. CAPACITORS

- Capacitors without symbolic mark are POLYESTER CAPACITORS. (ECQM-type, ECQG-type, ±10% Tolerance)

- Polarized capacitors without symbolic mark are Aluminum Electrolytic Capapcitors. (ECEA-type, ±20% Tolerance)

Table-2

SYMBOL	SPECIFICATION	TYPE
	Non-Polarized Electrolytic Capacitors	ECEA_KN_type
	Non-Polarized Electrolytic (for Network system)	ECEA_Y_type
	Tantalum Solid Electrolytic Capacitors	ECS_type
	Metalized Plastic Film Capacitors (TF Series)	ECQV_type
	Temperature Compensating Ceramic Capacitors	ECC_type
	High-Dielecytric Constant Ceramic Capacitors	ECK_type ECR_type
	Axial Lead Ceramic Capacitors	ECB_type
	Metalized Polyester Film Capacitors for Across the Line	ECQ_EW_type
	Aluminum Electrolytic Capacitors for Smoothing Circuit	ECES_type
	Multilayer Ceramic Chip Capacitors	ECUV_type

16. Schematic Diagram

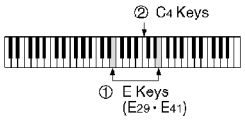
■Printed Circuit Board and Schematic Diagram

■ Measuring Condition of MAIN P.C.B.

Check Point ❷ - ❺

Set to the self-diagnostic mode followings.

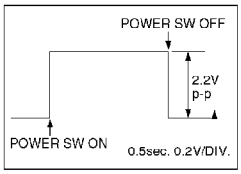
- While pressing two E keys (①) simultaneously, turn on the power switch.
- SOUND ..... BRASS
- Main Volume ..... MAX
- Keyboard ..... C4 (②)



Check Point ❶

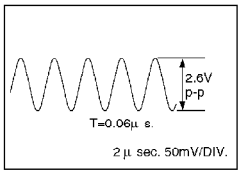
Set the initial setting mode (Refer to "4. Initialize".)

❶ $\overline{\text{RESET}}$

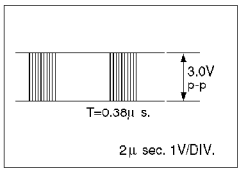


• Power SW..... ON • OFF

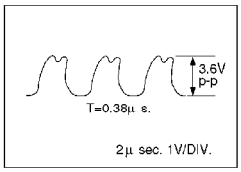
❷ TG CLOCK



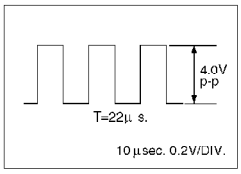
❸



❹



❺

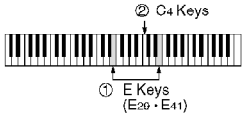


■ **Measuring Condition of FAJ P.C.B.**

Check Point ❽ - ❽

Set to the self-diagnostic mode followings.

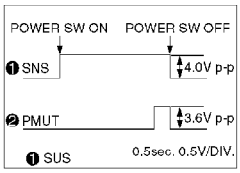
- While pressing two E keys (①) simultaneously, turn on the power switch.
- SOUND ..... BRASS
- Main Volume ..... MAX
- Keyboard ..... C_4 (②)



Check Point ❶ , ❷

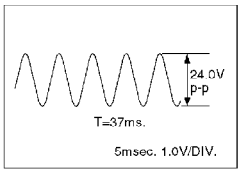
Set the initial setting mode (Refer to page I-6)

❶ **SNS,** ❷ **PMUT**

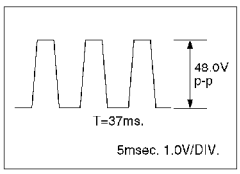


• Power SW ..... ON → OFF

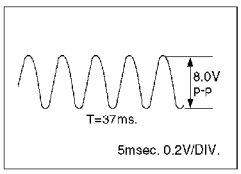
❸ **HPL,** ❹ **HPR**



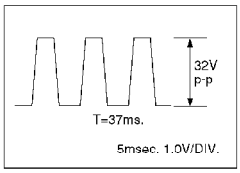
❺ **SPL,** ❻ **SPR**



❼ **SUML,** ❽ **SUMR**



❾ **SPW**



17. Printed Circuit Board

18. Block Diagram

19. Wiring Connection Diagram

20. Replacement Parts List

Notes:

***Important safety notice: / Components identified by ⚠ mark have special characteristics important for safety. / Funrthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors),low-noise (resistors), etc. are used. / When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list. / * Warning: This product uses a laser diode. Refer to caution statements.**

***ACHTUNG:Die lasereinheit nicht zerlegen.Die lasereinheit darf nur gegen einc vom hersteller spezifizierte einheit ausgetauscht werden.**
***Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F) / *Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000K (OHM)**
***The marking <RTL> indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retentionperiod of availability is dependant on the type of assembly , and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.**
***Since SW consists of buttons and P.C.B.'s, we do not supply it as an individual part (refer to "22. Manual Keyboard Parts and Control Panel Parts Location".).**
***[SPC] in Remarks columns parts that are supplied by SPC..**
***[M] in Remarks columns parts that are supplied by MESA.**
***"<IA>"-"<IH>", marks in Remarks indicate languages of instruction manuals. [<IA> : Danish, <IB> : English, <IC> : AmericanEnglish, <ID> : French, <IE> : Germany, <IF> : Italian, <IG> : Spanish, <IH> : Netherlands]**

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	QGQG0006AB	PUNCHING NET(L)	1	[M]
2	QGQG0007AB	PUNCHING NET(R)	1	[M]
3	QGQG0008AB	PUNCHING NET(C)	1	[M]
4	RFKGXKN6500P	CONTROL PANEL ASS'Y	1	[M]
5	QYAG3009AA	MUSIC STAND ASS'Y	1	[SPC]
6	QYKG284AA	BOTTOM CASE ASS'Y	1	[M]
7	QMRG5159AAK	SPEAKER PACKING	4	[SPC]
8	QMRG5160AAK	SPEAKER PACKING	8	[SPC]
9	QMFG4254AA	CUSHION	4	[SPC]
10	QMFG4253AA	CUSHION	2	[SPC]
11	SHGG3130A	FOOT	4	[SPC]
12	QMFG4080AAK	CUSHION	13	[SPC]
13	QEUGUZW15E	FFC(33P)	3	[M]
14	QHDG025AA	SCREW	2	[SPC]
15	QHDG050AA	SCREW	8	[SPC]
16	XYE3+FG12	SCREW	24	[SPC]
17	XTW3+10QFZ	SCREW	4	[SPC]
18	XTW3+12Q	SCREW	44	[SPC]
19	XTW3+16JFZ	SCREW	17	[SPC]
20	XTV3+12G	SCREW	44	[SPC]
21	K2AA2G000003	AC IN COVER	1	(EH,X,XD,XT)[SPC] ⚠
21	K2AA2G000003	AC IN COVER	1	(EX,EZ,EB,EG)[SPC] ⚠
21	SJS9334A	AC IN COVER	1	(P,PC)[SPC] ⚠
21	K2AA2G000003	AC IN COVER	1	(XS,XA,GN)[SPC] ⚠
22	XTB3+12GFZ	SCREW	2	[SPC]
23	XTT4+16GFZ	SCREW	6	[SPC]
24	XTW3+20Q	SCREW	2	[SPC]
25	XYN4+F20	SCREW	4	(P,PC,X,XS,XD,XT,XA)[SPC]
25	XYN4+F25	SCREW	4	(EX,EZ,EB,EG,EH,GN)[SPC]
26	QMFG4252AA	CUSHION	6	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
27	QMRG7106AA	SHAFT	2	[SPC]
28	QMRG7108AA	LOCK PLANK	2	[SPC]
29	QMFG4243AA	BUTTON CUSHION	1	[SPC]
30	QMFG4244AA	BUTTON CUSHION	1	[SPC]
31	QMFG4245AA	BUTTON CUSHION	1	[SPC]
32	QGUG1440AD1K	BUTTON	1	[M]
33	QGUG1472AA	BUTTON	1	[SPC]
34	QGUG1472BA	BUTTON	2	[SPC]
35	QGUG1472BB	BUTTON	1	[SPC]
36	QGUG1472CA	BUTTON	4	[SPC]
37	QGUG1473AA	BUTTON	1	[SPC]
38	QGUG1485AA	BUTTON	1	[SPC]
39	QGUG1473BA	BUTTON	1	[SPC]
40	QGUG1473CA	BUTTON	1	[SPC]
41	QGUG1474AA	BUTTON	1	[SPC]
42	QGUG1475AA	BUTTON	2	[SPC]
43	QGUG1476AB	BUTTON	1	[M]
44	QGUG1477AA	BUTTON	3	[SPC]
45	QGUG1478AB	BUTTON	1	[M]
46	QGUG1479AA	BUTTON	2	[SPC]
47	QGUG3008AA	MODULATION BALL	1	[SPC]
48	QGUG3002BB	DIAL WHEEL	1	[SPC]
49	SBNG7070B	VOLUME KNOB	2	[SPC]
50	QGUG1040AA	BUTTON,POWER	1	[SPC]
51	QMFG4107AA	CUSHION	5	[SPC]
52	QEUGMKW08D	FFC(19P)	1	[SPC]
53	QEUGMFW27DZ	FFC(15P)	1	[SPC]
54	QEUGM8W17DZ	FFC(8P)	1	[SPC]
55	XYE3+FG14	SCREW	2	[SPC]
56	SBNG4050AK	BENDER WHEEL	2	[SPC]
57	SHGG5010A	TUBE	2	[SPC]
58	QMFG4076AAK	CUSHION	2	[SPC]
59	XNS12FZ	NUT	9	[SPC]
60	QHQG009AA	NUT	2	[M]
61	XTW3+10T	SCREW	7	[SPC]
62	SUSG570A	SPRING	1	[SPC]
63	QGPG0143AD	LCD TOP	1	[M]
64	QSLG025AA	LCD	1	L5DCDPH00001 [SPC]
65	QEUGMLW15BZ	FFC(20P)	1	[SPC]
66	QEUGMKW25DZ	FFC(19P)	1	[SPC]
67	QEUGMHW38DZ	FFC(17P)	1	[SPC]
68	QEUGMHW26DZ	FFC(17P)	1	[SPC]
69	QEUGMHW16DZ	FFC(17P)	1	[SPC]
70	QGUG1480AA	BUTTON	1	[SPC]
71	QGUG1480BA	BUTTON	1	[SPC]
72	QGUG1481AA	BUTTON	2	[SPC]
73	QGUG1482AB	BUTTON	2	[M]
74	QGUG1483AB	BUTTON	6	[M]
75	QGUG1484AB	BUTTON	2	[M]
76	QMFG4246AA	CUSHION	2	[SPC]
77	QMFG4247AA	CUSHION	1	[SPC]
78	QMFG4248AA	CUSHION	1	[SPC]
79	QMFG4249AA	CUSHION	1	[SPC]
80	QMRG7107AA	SHAFT HOLDER	2	[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
81	QMRG7109AA	LOCK ARM(R)	1	[SPC]
82	QMRG7110AA	LOCK ARM(L)	1	[SPC]
83	QMRG7111AA	LOCK LEVER	1	[SPC]
84	QMGG063AA	CUSHION RUBBER	1	[SPC]
85	XTW3+10Q	SCREW	9	[SPC]
86	XTN23+10C	SCREW	4	[SPC]
87	XTW3+12QFZ	SCREW	9	[SPC]
88	QMRG5215AA	CUSHION	2	[SPC]
89	QMRG5216AA	CUSHION	2	[SPC]
90	QKWG036AA	LCD WINDOW	1	[SPC]
91	XTT4+20CFZ	SCREW	18	[M]
92	REM0072-3	FAN	1	[M]
93	XTB4+30C	SCREW	2	[SPC]
94	QMGG029AA	FLOATING RUBBER	8	[SPC]
95	QEUGMMW09D	FFC(21P)	1	[SPC]
96	XTW3+10TFZ	SCREW	3	[SPC]
97	XYN3+J8FZ	SCREW	2	[SPC]
98	XYN3+C8FZ	SCREW	1	[SPC]
99	QAUG027AA	FDD	1	[SPC]
100	QMFG4207AA	CUSHION	1	[SPC]
101	XYN3+F6FZ	SCREW	4	[SPC]
102	QKSGK021AB	LCD BOTTOM	1	[SPC]
201	XTW3+12Q	SCREW	3	[SPC]
202	QMWG6009BAK	13KEYS RUBBER SWITCH	1	[SPC]
203	QMWG6010BAK	12KEYS RUBBER SWITCH	4	[SPC]
204	QMFG4176AAK	CUSHION	1	[SPC]
205	QMRG2074AAK	HOLDING SHEET	1	[SPC]
206	QMWG5003CA	AFTER TOUCH SENSOR	1	[SPC]
207	XTW3+10T	SCREW	37	[SPC]
208	SHGG9052A	KEY GUIDE RUBBER	61	[SPC]
209	QMFG1120CA	FELT	1	[SPC]
210	STBG1101B	WHITE KEY(C,F)	10	[M]
211	STBG1111B	WHITE KEY(D)	5	[M]
212	STBG1121B	WHITE KEY(E,B)	10	[M]
213	STBG1131B	WHITE KEY(G)	5	[M]
214	STBG1141B	WHITE KEY(A)	5	[M]
215	STBG1151B	WHITE KEY(CC)	1	[M]
216	STBG2071AK	BLACK KEY	25	[SPC]
A1	QQFGKN6500AA	FAN BAG	1	(P)[M]<IC>
A1	QQFGKN6500BA	FAN BAG	1	(PC)[M]
A1	QQFGKN6500CA	FAN BAG	1	(EX)[M]
A1	QQFGKN6500DA	FAN BAG	1	(EZ)[M]
A1	QQFGKN6500EA	FAN BAG	1	(XD,XT,XS)[M]
A1	QQFGKN6500FA	FAN BAG	1	(EG)[M]
A1	QQFGKN6500GA	FAN BAG	1	(EH)[M]
A1	QQFGKN6500HA	FAN BAG	1	(X)[M]
A1	QQFGKN6500JA	FAN BAG	1	(XA)[M]
A1	QQFGKN6500KA	FAN BAG	1	(EB)[M]
A1	QQFGKN6500LA	FAN BAG	1	(GN)[M]
A1-1	QQTG0616A	INSTRUCTION MANUAL	1	(EX)[M]<IA>
A1-1	QQTG0617A	INSTRUCTION MANUAL	1	(PC,EX,X)[M]<IB>
A1-1	QQTG0619A	INSTRUCTION MANUAL	1	(PC,EH,EG)[M]<ID>
A1-1	QQTG0620A	INSTRUCTION MANUAL	1	(EG,EH)[M]<IE>

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A1-1	QQTG0621A	INSTRUCTION MANUAL	1	(EG)[M]<IF>
A1-1	QQTG0622A	INSTRUCTION MANUAL	1	(EX,X)[M]<IG>
A1-1	QQTG0623A	INSTRUCTION MANUAL	1	(EH)[M]<IH>
A2	QAQG066AA	FLOPPY DISC SET	1	[SPC]
A3	QJAG025AA	AC CORD	1	K2CB2ED00001 (P,PC)[SPC] ⚠
A3	QJAG029AA	AC CORD	1	(GN)[SPC] ⚠
A3	QJAG031AA	AC CORD	1	(XA)[SPC] ⚠
A3	SJAG65	AC CORD	1	K2CR2ED00001 (EX,EZ)[SPC] ⚠
A3	SJAG65	AC CORD	1	K2CR2ED00001 (EG,EH)[SPC] ⚠
A3	SJAG65	AC CORD	1	K2CR2ED00001 (X,XT,XS)[SPC] ⚠
A3	VJA0733	AC CORD	1	K2CT3DA00001 (EB,XD)[SPC] ⚠
C1	ECEA0JKA221	6.3V 220	1	INV[SPC]
C1	ECEA0JKA470	6.3V 47	1	MKB2[SPC]
C1	ECKCVA1472MF	4700P	1	F1B2H4720008 ACP[SPC] ⚠
C1	ECQB1H333JF3	50V 0.033	1	HB[SPC]
C1	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C1	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C1	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C2	ECQB1H333JF3	50V 0.033	1	HB[SPC]
C2	ECQU2A104MN	0.1	1	ACP[SPC] ⚠
C2	ECQV1H104JM	50V 0.1	1	INV[SPC]
C2	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C2	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C2	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 MKB2[SPC]
C2	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C3	ECCW3F180JGE	18P	1	INV[SPC] ⚠
C3	ECUV1C224KBX	16V 0.22	1	MAIN[SPC]
C3	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C3	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 HB[SPC]
C3	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 MKB2[SPC]
C4	ECEA0JKS470	6.3V 47	1	CPL[SPC]
C4	ECUV1H104ZFX	50V 0.1	1	INV[SPC]
C4	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C4	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 MKB2[SPC]
C5	ECBT1H470J	50V 47P	1	MKB2[SPC]
C5	ECEA1AKS221	6.3V 220	1	CPL[SPC]
C5	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C5	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C6	ECBA1H470J5	50V 47P	1	ECBT1H470J3 CPL[SPC]
C6	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C6	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C6	ECBT1H470J	50V 47P	1	MKB2[SPC]
C7	ECEA1CKS100	16V 10	1	FAJ[SPC]
C7	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C7	ECBT1H470J	50V 47P	1	CPL[SPC]
C7,C8	ECBT1H470J	50V 47P	2	MKB2[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8	ECEA1CKS100	16V 10	1	FAJ[SPC]
C8	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C8	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C9	ECBT1H470J	50V 47P	1	MKB2[SPC]
C9	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C9	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C9	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C10	ECBT1H470J	50V 47P	1	MKB2[SPC]
C10	ECEA1EKA470	25V 47	1	ASUB[SPC]
C10	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C10	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C10	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C11	ECBT1H470J	50V 47P	1	MKB2[SPC]
C11	ECEA1EKA470	25V 47	1	ASUB[SPC]
C11	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C11	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C11	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C12	ECBT1H470J	50V 47P	1	MKB2[SPC]
C12	ECEA1EKA470	25V 47	1	ASUB[SPC]
C12	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C12	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C13	ECEA1EKA470	25V 47	1	ASUB[SPC]
C13	ECQE1A104M6	0.1	1	FAJ[SPC] ⚠
C13	ECUV1H103KBG	50V 0.01	1	MAIN[SPC]
C13	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C13	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 MKB3[SPC]
C14	ECA1EM101	25V 100U	1	ASUB[SPC]
C14	ECQV1H683JZ3	50V 0.068	1	FAJ[SPC]
C14	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C14	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C15	ECQV1H683JZ3	50V 0.068	1	FAJ[SPC]
C15	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C15	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C16	ECA1EAM472XE	25V 4700	1	FAJ[SPC]
C16	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C16	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C17	ECA1EAM472XE	25V 4700	1	FAJ[SPC]
C17	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C17	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPL[SPC]
C18	ECA1EAM472XE	25V 4700	1	FAJ[SPC]
C18	ECUV1H030CCN	50V 3P	1	MAIN[SPC]
C19	ECA1EAM472XE	25V 4700	1	FAJ[SPC]
C19	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C21	ECQV1H104JZ	50V 0.1	1	FAJ[SPC]
C21	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C22	ECQV1H104JZ	50V 0.1	1	FAJ[SPC]
C22,23	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C23	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C24	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C24	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C25	ECQV1H104JZ	50V 0.1	1	FAJ[SPC]
C25	ECUV1H680JG	50V 68P	1	MAIN[SPC]
C26	ECQV1H104JZ	50V 0.1	1	FAJ[SPC]
C26	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C27	ECCR1H220J	50V 22P	1	FAJ[SPC]
C27	ECUV1H103KBG	50V 0.01	1	MAIN[SPC]
C28	ECEA1CKS100	16V 10	1	FAJ[SPC]
C28,29	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C29	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C30	ECBA1H102KB5	50V 0.001	1	CPC[SPC]
C30	ECCR1H220J	50V 22P	1	FAJ[SPC]
C30	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C31	ECBA1H102KB5	50V 0.001	1	CPC[SPC]
C31	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C31	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C32	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C32	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C33	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C33	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C34	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C34	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C35	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C35	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C36	ECQB1H223JF3	50V 0.022	1	FAJ[SPC]
C36	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C37	ECQB1H473JF3	50V 0.047	1	FAJ[SPC]
C38	ECQB1H223JF3	50V 0.022	1	FAJ[SPC]
C38	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C39	ECQB1H473JF3	50V 0.047	1	FAJ[SPC]
C39,40	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C40	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPR[SPC]
C41	ECA1CM101	16V 100	1	FAJ[SPC]
C41	ECUV1H221JG	50V 220P	1	MAIN[SPC]
C41	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPR[SPC]
C42	ECEA1AKS221	6.3V 220	1	CPR[SPC]
C42	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C43	ECEA0JKS470	6.3V 47	1	CPR[SPC]
C43	ECQB1H473JF3	50V 0.047	1	FAJ[SPC]
C43	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C44	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C45	ECBA1H470J5	50V 47P	1	ECBT1H470J3 CPR[SPC]
C45	ECQB1H473JF3	50V 0.047	1	FAJ[SPC]
C46	ECBA1H470J5	50V 47P	1	ECBT1H470J3 CPR[SPC]
C46	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C47	ECEA1HSN010	50V 1	1	FAJ[SPC]
C47	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPR[SPC]
C48	ECEA1HSN010	50V 1	1	FAJ[SPC]
C48	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPR[SPC]
C49	ECQB1H333JF3	50V 0.033	1	FAJ[SPC]
C49	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 CPR[SPC]
C50	ECQG1H222KZT	50V 0.0022	1	F0A1H222A025 FAJ[SPC]
C51	ECQB1H333JF3	50V 0.033	1	FAJ[SPC]
C52	ECQG1H222KZT	50V 0.0022	1	F0A1H222A025 FAJ[SPC]
C53	ECQG1H682KZT	50V 6800P	1	F0A1H682A025 FAJ[SPC]
C54	ECEA0JKS470	6.3V 47	1	FAJ[SPC]
C55	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C57	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C58	ECCR1H470J5	50V 47P	1	FAJ[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C59	ECQG1H332KZT	50V 3300P	1	F0A1H332A025 FAJ[SPC]
C60	ECQG1H222KZT	50V 2200P	1	F0A1H222A025 FAJ[SPC]
C61	ECQG1H332KZT	50V 3300P	1	F0A1H332A025 FAJ[SPC]
C62	ECQG1H222KZT	50V 2200P	1	F0A1H222A025 FAJ[SPC]
C63-66	QCBG1H104ZFA	50V 0.1	4	F1E1H104A001 FAJ[SPC]
C67	ECBT1H221KB5	50V 220P	1	F1D1H221A012 FAJ[SPC]
C68	ECEA1HSN010	50V 1	1	FAJ[SPC]
C69	ECCR1H151J	50V 150P	1	FAJ[SPC]
C70,71	QCBG1H104ZFA	50V 0.1	2	F1E1H104A001 FAJ[SPC]
C72	ECCR1H151J	50V 150P	1	FAJ[SPC]
C73	ECEA1HSN010	50V 1	1	FAJ[SPC]
C74	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C75	ECEA1HKN010	50V 1	1	FAJ[SPC]
C76	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C77,78	ECQV1H683JZ3	50V 0.068	2	FAJ[SPC]
C79	ECCR1H471J5	50V 470P	1	FAJ[SPC]
C80,81	ECQV1H683JZ3	50V 0.068	2	FAJ[SPC]
C82	ECQB1H473JF3	50V 0.047	1	FAJ[SPC]
C83	ECQB1H223JF3	50V 0.022	1	FAJ[SPC]
C84	ECCR1H471J5	50V 470P	1	FAJ[SPC]
C85	ECEA1CKN100B	16V 10	1	FAJ[SPC]
C86,87	ECQV1H104JZ	50V 0.1	2	FAJ[SPC]
C88	ECCR1H470J5	50V 47P	1	FAJ[SPC]
C89,90	QCBG1H104ZFA	50V 0.1	2	F1E1H104A001 FAJ[SPC]
C91	ECCR1H470J5	50V 47P	1	FAJ[SPC]
C92	ECEA1CKS100	16V 10	1	FAJ[SPC]
C93	ECA1CM101	16V 100	1	FAJ[SPC]
C94-96	ECCR1H221J5	50V 220P	3	FAJ[SPC]
C97	ECEA1CKN100B	16V 10	1	FAJ[SPC]
C98	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C99	ECEA1CKN100B	16V 10	1	FAJ[SPC]
C100,01	ECQG1H472KZT	50V 4700P	2	F0A1H472A025 FAJ[SPC]
C101	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C102	ECQG1H332KZT	50V 3300P	1	F0A1H332A025 FAJ[SPC]
C102	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C103	ECEA0JKA101	6.3V 100	1	MAIN[SPC]
C103	ECQG1H332KZT	50V 3300P	1	F0A1H332A025 FAJ[SPC]
C104	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C104	ECUV1H470JG	50V 47P	1	MAIN[SPC]
C105	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C105	ECUV1H470JG	50V 47P	1	MAIN[SPC]
C106	ECQV1H105JZ3	50V 1	1	FAJ[SPC]
C106	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C107	ECQV1H105JZ3	50V 1	1	FAJ[SPC]
C107	ECUV1H333KBX	50V 0.033	1	MAIN[SPC]
C108	ECA1EM102	25V 1000	1	FAJ[SPC]
C108	ECUV1H333KBX	50V 0.033	1	MAIN[SPC]
C109	ECA1EM102	25V 1000	1	FAJ[SPC]
C109	ECUV1H103KBG	50V 0.01	1	MAIN[SPC]
C110	ECQV1H105JZ3	50V 1	1	FAJ[SPC]
C110	ECUV1H472KBG	50V 4700P	1	MAIN[SPC]
C111	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C112	ECUV1H100DCN	50V 10P	1	MAIN[SPC]
C113	ECUV1H182JX	50V 1800P	1	MAIN[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C114	ECEA50Y1R5K	50V 1.5	1	FAJ[SPC]
C114	ECUV1H223KBX	50V 0.022	1	MAIN[SPC]
C115	ECEA50Y1R5K	50V 1.5	1	FAJ[SPC]
C115	ECUV1H100DCN	50V 10P	1	MAIN[SPC]
C116	ECQG1H472KZT	50V 4700P	1	F0A1H472A025 FAJ[SPC]
C116,17	ECUV1H101JG	50V 100P	2	MAIN[SPC]
C117	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 FAJ[SPC]
C118,19	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C121	ECUV1H103KBG	50V 0.01	1	MAIN[SPC]
C122-31	ECUV1H104ZFX	50V 0.1	10	MAIN[SPC]
C201	ECUV1H470JG	50V 47P	1	MAIN[SPC]
C201-05	QCBG1H104ZFA	50V 0.1	5	F1E1H104A001 JACK[SPC]
C206	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C206	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 JACK[SPC]
C207	ECUV1H100DCN	50V 10P	1	MAIN[SPC]
C207	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 JACK[SPC]
C208	ECUV1H100DCN	50V 10P	1	MAIN[SPC]
C209,10	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C210	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 JACK[SPC]
C211	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C211	QCBG1H104ZFA	50V 0.1	1	F1E1H104A001 JACK[SPC]
C212-27	ECUV1H104ZFX	50V 0.1	16	MAIN[SPC]
C301-03	ECUV1H104ZFX	50V 0.1	3	MAIN[SPC]
C304,05	ECUV1H030CCN	50V 3P	2	MAIN[SPC]
C306-29	ECUV1H104ZFX	50V 0.1	24	MAIN[SPC]
C330	EECS5R5V105	5.5V 1F	1	MAIN[SPC]
C331	ECEA0JKA101	6.3V 100	1	MAIN[SPC]
C332	EECS5R5V105	5.5V 1F	1	MAIN[SPC]
C333	ECRR1H104ZF	50V 0.1P	1	MAIN[SPC]
C334,35	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C336,37	ECUV1H471JG	50V 470P	2	MAIN[SPC]
C338	ECA0JM102	6.3V 1000	1	MAIN[SPC]
C339-41	ECUV1H104ZFX	50V 0.1	3	MAIN[SPC]
C342,43	ECEA1CKA100	16V 10	2	MAIN[SPC]
C344	ECUV1H102JX	50V 0.01	1	MAIN[SPC]
C345,46	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C347	ECEA0JKA101	6.3V 100	1	MAIN[SPC]
C348,49	ECEA1CKA100	16V 10	2	MAIN[SPC]
C350	ECUV1H472KBG	50V 4700P	1	MAIN[SPC]
C351	ECUV1C224KBX	16V 0.22	1	MAIN[SPC]
C352,53	ECUV1H151JG	50V 150P	2	MAIN[SPC]
C354	ECEA1CKA100	16V 10	1	MAIN[SPC]
C355	ECA0JM102	6.3V 1000	1	MAIN[SPC]
C356,57	ECRR1H104ZF	50V 0.1P	2	MAIN[SPC]
C358,59	ECUV1H104ZFX	50V 0.1	2	MAIN[SPC]
C360	ECUV1H102JX	50V 0.01	1	MAIN[SPC]
C361	ECEA1CKA100	16V 10	1	MAIN[SPC]
C362	ECUV1H104ZFX	50V 0.1	1	MAIN[SPC]
C363	ECA1EM101	25V 100U	1	MAIN[SPC]
C364	ECUV1C224KBX	16V 0.22	1	MAIN[SPC]
C365-70	ECUV1H104ZFX	50V 0.1	6	MAIN[SPC]
C371,72	ECUV1H102JX	50V 0.01	2	MAIN[SPC]
D1	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D1	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D1	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D2	MA111TX	DIODE	1	MA2J11100L MAIN[SPC]
D2	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D2	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D2	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D3	ERA1502V5	DIODE	1	B0EAKM000061 FAJ[SPC]
D3	MA111TX	DIODE	1	MA2J11100L MAIN[SPC]
D3	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D3	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D4	ERA1502V5	DIODE	1	B0EAKM000061 FAJ[SPC]
D4	MA111TX	DIODE	1	MA2J11100L MAIN[SPC]
D4	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D4	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D5	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D5	SVDS3V40	DIODE	1	FAJ[M]
D5	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D6	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D6	SVDS3V40	DIODE	1	FAJ[M]
D6	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D7	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D7	SVDS3V40	DIODE	1	FAJ[M]
D7	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D8	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D8	SVDS3V40	DIODE	1	FAJ[M]
D8	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D9	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D9	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D9	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D10	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D10	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D10	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D11	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D11	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D11	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D12	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D12	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D12	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D13	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D13	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D13	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D14	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D14	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D14	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D15	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D15	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D15	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D16	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D16	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D16	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D17	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D17	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D17	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D18	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D18	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D18	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D19	EK04W	DIODE	1	B0JAME000042 FAJ[SPC]
D19	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D19	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D20	EK04W	DIODE	1	B0JAME000042 FAJ[SPC]
D20	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D20	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D21	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D21	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D21	MA4150M	DIODE	1	MAZ41500M FAJ[SPC]
D22	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D22	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D22	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D23	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D23	MA165TA5	DIODE	1	MA2C16500E FAJ[SPC]
D23	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D24	EK04W	DIODE	1	B0JAME000042 FAJ[SPC]
D24	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D24	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D25	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D25	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D25	MA4075L	DIODE	1	MAZ40750L FAJ[SPC]
D26	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D26	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D27	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D27	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D28	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D28	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D29	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D29	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D30	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D30	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D31	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D31	MA165TA5	DIODE	1	MA2C16500E LCDL[SPC]
D32	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D32	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D33	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D33	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D34	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D34	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D35	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D35	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D36	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D36	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D37	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D37	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D38	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D38	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D39	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D39	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D40	EK04W	DIODE	1	B0JAME000042 FAJ[SPC]
D40	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D40	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D41	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D41	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D42	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D42	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D43	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D43	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D44	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D44	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D45	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D45	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D46	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D46	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D47	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D47	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D48	MA165TA5	DIODE	1	MA2C16500E MKB1[SPC]
D48	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D49	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D49	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D50	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D50	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D51	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D51	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D52	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D52	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D53	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D53	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D54	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D54	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D55	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D55	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D56	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D56	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D57	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D57	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D58	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D58	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D59	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D59	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D60	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D60	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D61	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D61	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D62	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D62	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D63	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D63	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D64	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D64	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D65	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D65	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D66	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D66	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D67	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D67	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D68	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D68	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D69	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D69	MA165TA5	DIODE	1	MA2C16500E LCDC[SPC]
D70	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D70	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D71	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D71	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D72	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D72	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D73	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D73	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D74	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D74	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D75	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D75	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D76	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D76	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D77	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D77	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D78	MA165TA5	DIODE	1	MA2C16500E MKB2[SPC]
D78	MA165TA5	DIODE	1	MA2C16500E CPL[SPC]
D79-96	MA165TA5	DIODE	18	MA2C16500E MKB2[SPC]
D97-00	MA165TA5	DIODE	4	MA2C16500E MKB3[SPC]
D101	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D101	MA152WK	DIODE	1	MAIN[M]
D101	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D102	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D102	MA152WK	DIODE	1	MAIN[M]
D102	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D103	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D103	MA152WA	DIODE	1	MAIN[M]
D103	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D104	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D104	MA152WA	DIODE	1	MAIN[M]
D104,05	MA165TA5	DIODE	2	MA2C16500E MKB3[SPC]
D106	LN282RPXVTX3	LED	1	LNJ282RKRX02 LCDC[SPC]
D106-08	MA165TA5	DIODE	3	MA2C16500E MKB3[SPC]
D109	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D109	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D110	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D110	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D111	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D111	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D112	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D112-18	MA165TA5	DIODE	7	MA2C16500E MKB3[SPC]
D119	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D119	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D120	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D120	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D121	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D121	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]
D122	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D122	MA165TA5	DIODE	1	MA2C16500E MKB3[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D125	LN382GPXVTX3	LED	1	LNJ382GKGX02 CPL[SPC]
D126	LN282RPXVTX3	LED	1	LNJ282RKRX02 CPL[SPC]
D127	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D127	LN282RPXVTX3	LED	1	LNJ282RKRX02 CPL[SPC]
D128	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D128	LN282RPXVTX3	LED	1	LNJ282RKRX02 CPL[SPC]
D129	LN382GPXVTX2	LED	1	LNJ382GKGX01 LCDL[SPC]
D129	LN382GPXVTX3	LED	1	LNJ382GKGX02 CPL[SPC]
D130	LN382GPXVTX2	LED	1	LNJ382GKGX01 LCDL[SPC]
D130	LN382GPXVTX3	LED	1	LNJ382GKGX02 CPL[SPC]
D131-33	LN382GPXVTX2	LED	3	LNJ382GKGX01 LCDL[SPC]
D134	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDL[SPC]
D201	MA165TA5	DIODE	1	MA2C16500E LCDR[SPC]
D201	MA165TA5	DIODE	1	MA2C16500E JACK[SPC]
D202	MA165TA5	DIODE	1	MA2C16500E LCDR[SPC]
D202	MA165TA5	DIODE	1	MA2C16500E JACK[SPC]
D203-25	MA165TA5	DIODE	23	MA2C16500E LCDR[SPC]
D226-29	MA165TA5	DIODE	4	MA2C16500E CPC[SPC]
D230-33	MA165TA5	DIODE	4	MA2C16500E CPR[SPC]
D234-37	MA165TA5	DIODE	4	MA2C16500E CPC[SPC]
D238-41	MA165TA5	DIODE	4	MA2C16500E CPR[SPC]
D242-45	MA165TA5	DIODE	4	MA2C16500E CPC[SPC]
D246-49	MA165TA5	DIODE	4	MA2C16500E CPR[SPC]
D250-53	MA165TA5	DIODE	4	MA2C16500E CPC[SPC]
D254-57	MA165TA5	DIODE	4	MA2C16500E CPR[SPC]
D258-60	MA165TA5	DIODE	3	MA2C16500E CPC[SPC]
D261-72	MA165TA5	DIODE	12	MA2C16500E CPR[SPC]
D301	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D301	MA2051LF	DIODE	1	MAZ2051000LF MAIN[SPC]
D302	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D302	MA152WK	DIODE	1	MAIN[M]
D303	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D303	MA152WA	DIODE	1	MAIN[M]
D304	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D304	MA152WK	DIODE	1	MAIN[M]
D305,06	LN282RPXVTX2	LED	2	LNJ282RKRX01 LCDR[SPC]
D306	SFPB-74V	DIODE	1	MAIN[SPC]
D307	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D307	MA111TX	DIODE	1	MA2J11100L MAIN[SPC]
D308	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D308	MA2062LF	DIODE	1	MAZ2062000LF MAIN[SPC] ⚠
D309	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D309	MA8033H	DIODE	1	MAIN[SPC]
D310	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D310	MA1062MTR	DIODE	1	MAZ10620MC MAIN[SPC]
D311	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D311	MA8056	DIODE	1	MAZ8056 MAIN[SPC]
D312	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D312	SFPB-74V	DIODE	1	MAIN[SPC]
D313	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D313	MA111TX	DIODE	1	MA2J11100L MAIN[SPC]
D314	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D314	MA8051L	DIODE	1	MAIN[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D315	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D315	MA8082M	DIODE	1	MAZ80820M MAIN[SPC]
D316	LN382GPXVTX2	LED	1	LNJ382GKGX01 LCDR[SPC]
D316	MA111TX	DIODE	1	MA2J11100L MAIN[SPC]
D317	LN282RPXVTX2	LED	1	LNJ282RKRX01 LCDR[SPC]
D317	MA111TX	DIODE	1	MA2J11100L MAIN[SPC]
D318-20	LN282RPXVTX2	LED	3	LNJ282RKRX01 LCDR[SPC]
D323-31	LN282RPXVTX3	LED	9	LNJ282RKRX02 CPC[SPC]
D332-34	LN382GPXVTX3	LED	3	LNJ382GKGX02 CPC[SPC]
D335-38	LN282RPXVTX3	LED	4	LNJ282RKRX02 CPC[SPC]
D339,40	LN382GPXVTX3	LED	2	LNJ382GKGX02 CPC[SPC]
D341-44	LN282RPXVTX3	LED	4	LNJ282RKRX02 CPC[SPC]
D345	LN382GPXVTX3	LED	1	LNJ382GKGX02 CPC[SPC]
D351-58	LN382GPXVTX3	LED	8	LNJ382GKGX02 CPR[SPC]
D359-68	LN282RPXVTX3	LED	10	LNJ282RKRX02 CPR[SPC]
D369	LN382GPXVTX3	LED	1	LNJ382GKGX02 CPR[SPC]
D370,71	LN282RPXVTX3	LED	2	LNJ282RKRX02 CPR[SPC]
D372-76	LN382GPXVTX3	LED	5	LNJ382GKGX02 CPR[SPC]
D377	LN282RPXVTX3	LED	1	LNJ282RKRX02 CPR[SPC]
F1	XBA1C20NB100	FUSE,2A	1	ACP(P,PC)[SPC] ⚠
F1	XBA2C12TB0L	FUSE,T1.25A	1	ACP(X,XS,XD,XT,XA)[SPC] ⚠
F2	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(X,XS)[SPC] ⚠
F2	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(XD)[SPC] ⚠
F2	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(XT)[SPC] ⚠
F2	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(XA)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(EZ)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(EB)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(EG)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(EH)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(XD)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(XT)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(EX)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(X,XS)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(XA)[SPC] ⚠
F3	XBA2C08TB0L	FUSE,T800MA	1	K5Y800B00001 ACP(GN)[SPC] ⚠
F4	XBA2C25TB0L	FUSE,T2.5A	1	FAJ(EH,X,XS)[SPC] ⚠
F4	XBA2C25TB0L	FUSE,T2.5A	1	FAJ(EZ,EB,EG)[SPC] ⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
F4	XBA2C25TB0L	FUSE,T2.5A	1	FAJ(XD,XT,GN,XA,EX)[SPC] ⚠
F4	XBA1C25NB100	FUSE,2.5A	1	FAJ(P,PC)[SPC] ⚠
IC1	HD74LS138P	IC	1	MKB2[SPC]
IC1	M37471M2196S	IC	1	CPL[SPC]
IC1	QCPL-260L	IC	1	FAJ[SPC]
IC1	TC74VHC138F	IC	1	C0JBAN000074 MAIN[SPC]
IC2	HD74LS07P	IC	1	CPL[SPC]
IC2	HD74LS138P	IC	1	MKB2[SPC]
IC2	M5F78M15L	IC	1	C0CAALE00004 FAJ[SPC] ⚠
IC2	TC74VHC139F	IC	1	MAIN[SPC]
IC3	M5218AL	IC	1	C0AABB000054 MKB3[SPC]
IC3	M5F79M15L	IC	1	C0CABLE00002 FAJ[SPC] ⚠
IC3	TC74VHC139F	IC	1	MAIN[SPC]
IC4	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC4	MN103002A	IC	1	MAIN[SPC]
IC5	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC5	TC7SH02FU	IC	1	MAIN[SPC]
IC6	IMIFS741BZBD	IC	1	MAIN[SPC]
IC6,C7	M5218AL	IC	2	C0AABB000054 FAJ[SPC]
IC7	TC7SH08FU	IC	1	C0JBZZ000138 MAIN[SPC]
IC8	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC8	TC74VHC08F	IC	1	MAIN[SPC]
IC9	K16V1204CTL6	IC	1	C3ABMG000029 MAIN[SPC]
IC9	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC10	K16V1204CTL6	IC	1	C3ABMG000029 MAIN[SPC]
IC10	M37471M2196S	IC	1	CPR[SPC]
IC10	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC11	HD74LS138P	IC	1	CPR[SPC]
IC11	M29LV160B8TN	IC	1	MAIN[SPC]
IC11	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC12	HD74LS07P	IC	1	CPR[SPC]
IC12	M29LV160B8TN	IC	1	MAIN[SPC]
IC12	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC13	C3FBMD000069	IC	1	MAIN[SPC]
IC13	HD74LS07P	IC	1	CPR[SPC]
IC13	M5218AL	IC	1	C0AABB000054 FAJ[SPC]
IC14	C3FBMD000068	IC	1	MAIN[SPC]
IC14,15	M5218AL	IC	2	C0AABB000054 FAJ[SPC]
IC15	QSIGX3C32021	IC	1	MAIN[SPC]
IC18	M29LV160B8TN	IC	1	MAIN[SPC]
IC19	TC7W08FTE12L	IC	1	MAIN[SPC]
IC20	T55V2161FT16	IC	1	MAIN[SPC]
IC21	TC7SH32FU	IC	1	MAIN[SPC]
IC22	TC7WH125FU	IC	1	MAIN[SPC]
IC23	TC7WH74FU	IC	1	MAIN[SPC]
IC24	T7SZ32FUT85L	IC	1	MAIN[SPC]
IC101	D72070GF3BE	IC	1	C1DB00000430 MAIN[SPC]
IC102	TC7WT241FU	IC	1	MAIN[SPC]
IC103	TC7S14F	IC	1	MAIN[SPC]
IC104	TC7WT241FU	IC	1	MAIN[SPC]
IC105	TC7SU04FT85L	IC	1	C0JBAZ000519 MAIN[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC106	TC74LCX245F	IC	1	MAIN[SPC]
IC107	M5M34051FPE2	IC	1	MAIN[SPC]
IC108	SED1354F2A	IC	1	MAIN[SPC]
IC109	T74LCX16244A	IC	1	MAIN[SPC]
IC110	LC32V4265T25	IC	1	C3ABEG000002 MAIN[SPC]
IC111	T7SET04FT85L	IC	1	MAIN[SPC]
IC112	TC7SH08FU	IC	1	C0JBZZ000138 MAIN[SPC]
IC202	TC74LCX541F	IC	1	MAIN[SPC]
IC203,04	TC74VHC138F	IC	2	C0JBAN000074 MAIN[SPC]
IC205	QSIGX3C64004	IC	1	MAIN[SPC]
IC206	QSIGX3C64005	IC	1	MAIN[SPC]
IC207	QSIGX3C64006	IC	1	MAIN[SPC]
IC208	QSIGX3C64007	IC	1	MAIN[SPC]
IC209	QSIGX3C64020	IC	1	MAIN[SPC]
IC210	QSIGX3C64019	IC	1	MAIN[SPC]
IC213	D82398GD001	IC	1	MAIN[SPC]
IC214,15	T7SZ32FUT85L	IC	2	MAIN[SPC]
IC301	TC74VHC245F	IC	1	MAIN[SPC]
IC302	TC74VHC574F	IC	1	C0JBAF000154 MAIN[SPC]
IC303	TC74VHC245F	IC	1	MAIN[SPC]
IC304	S21065LKS240	IC	1	MAIN[SPC]
IC305,06	K16S1120DTG8	IC	2	C3ABMG000039 MAIN[SPC]
IC307	PCM1728E2K	IC	1	MAIN[SPC]
IC308	BA10393F-E2	IC	1	MAIN[SPC]
IC309	PCM1800E-T1	IC	1	C0FBAJ000004 MAIN[SPC]
IC310	M5218AFPE3	IC	1	C0ABBB000163 MAIN[SPC]
IC312	MN1382CTX	IC	1	MN1382CP MAIN[SPC]
IP1-P4	ICP-N10T104	IC PROTECTOR	4	FAJ[SPC] ⚠
IP5,P6	ICP-N75T104	IC PROTECTOR	2	FAJ[SPC] ⚠
IP7,P8	ICP-N10T104	IC PROTECTOR	2	FAJ[SPC] ⚠
JK1	QJJG010AA	JACK,HEADPHONE	1	HB[SPC]
JK1	QJSG016AA	JACK,MIDI THRU	1	K1CB103B0007 FAJ[SPC]
JK1	SJVD0203B	JACK,AC IN	1	ACP[SPC] ⚠
JK2	QJSG016AA	JACK,MIDI OUT	1	K1CB103B0007 FAJ[SPC]
JK3	QJSG016AA	JACK,MIDI IN	1	K1CB103B0007 FAJ[SPC]
JK4	QJJG011AA	JACK,MIC	1	FAJ[SPC]
JK5	QJJG012AA	JACK,AUX IN L	1	FAJ[SPC]
JK6	QJJG012AA	JACK,AUX IN R/R+L	1	FAJ[SPC]
JK7	QJJG012AA	JACK,LINE OUT L	1	FAJ[SPC]
JK8	QJJG012AA	JACK,LINE OUT R/R+L	1	FAJ[SPC]
JK201	QJSG017AA	JACK,COMPUTER	1	JACK[SPC]
JK202	QJJG012AA	JACK,FOOT SW1	1	JACK[SPC]
JK203	QJJG012AA	JACK,FOOT SW2	1	JACK[SPC]
JK204	SJSG1390A	JACK,FOOT CONTROLLER	1	K1CB108B0027 JACK[SPC]
JK205	QJJG010AA	JACK,EXP.PEDAL	1	JACK[SPC]
JP1	ERJ6GEY0R00V	1/10W 0	1	MAIN[SPC]
JP3	ERJ6GEY0R00V	1/10W 0	1	MAIN[SPC]
JP201	ERJ6GEY0R00V	1/10W 0	1	MAIN[SPC]
JP203	ERJ6GEY0R00V	1/10W 0	1	MAIN[SPC]
L1	QLBG003A	COIL	1	MAIN[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L1	QLBG005A	COIL	1	FAJ[SPC]
L1	QLQGT2T100LA	10UH×2	1	ACP[SPC] ⚠
L1	QLQGT3T131LA	130UH×3	1	HB[SPC]
L1	QLBG005A	COIL	1	INV[SPC]
L2	QLBG005A	COIL	1	FAJ[SPC]
L2	QLBG005A	COIL	1	INV[SPC]
L3	QLBG005A	COIL	1	FAJ[SPC]
L3	QLBG005A	COIL	1	INV[SPC]
L4	QLBG005A	COIL	1	FAJ[SPC]
L4	QLQGT1B101KA	100UH×1	1	G0C101K00030 INV[SPC]
L5-L9	QLBG005A	COIL	5	FAJ[SPC]
L10,11	QLQGT3T131LA	130UH×3	2	FAJ[SPC]
L12-15	QLBG005A	COIL	4	FAJ[SPC]
L16-19	QLQGT3T131LA	130UH×3	4	FAJ[SPC]
L20,21	QLBG005A	COIL	2	FAJ[SPC]
L22-24	QLQGT1D600LA	60UH×3	3	FAJ[SPC]
L28,29	QLCGTKR68KA	0.68UH×3	2	FAJ[SPC]
L30	QLBG005A	COIL	1	FAJ[SPC]
L36	QLBG005A	COIL	1	FAJ[SPC]
L38,39	QLBG005A	COIL	2	FAJ[SPC]
L101-04	QLBG005A	COIL	4	MAIN[SPC]
L105	ERD25V0R00T	1/4W 0	1	MAIN[SPC]
L201-06	QLQGT3T131LA	130UH×3	6	JACK[SPC]
L301,02	QLQGT1T121LA	COIL	2	MAIN[SPC]
L303,04	QLBG005A	COIL	2	MAIN[SPC]
P1	QPGG0491AA	PACKING CASE	1	[M]
PCB1	SXPG232031	MAIN P.C.B.	1	(EB,EH,EX,EZ)(RTL)[SPC]
PCB1	SXPG232031	MAIN P.C.B.	1	(PC,EG,X,XS,XA)(RTL)[SPC]
PCB1	SXPG232031	MAIN P.C.B.	1	(XD,XT,GN)(RTL)[SPC]
PCB1	SXPG232041	MAIN P.C.B.	1	(P)(RTL)[SPC]
PCB2	SXPG232111A	CPL P.C.B.	1	(RTL)[SPC]
PCB2	SXPG232111B	CPC P.C.B.	1	(RTL)[SPC]
PCB3	SXPG232111C	CPR P.C.B.	1	(RTL)[SPC]
PCB4	SXPG232111D	CNB P.C.B	1	(RTL)[SPC]
PCB5	SXPG232111E	ROT P.C.B	1	(RTL)[SPC]
PCB6	SXPG232211A	FAJ P.C.B.	1	(EZ,EB,EG)(RTL)[SPC]
PCB6	SXPG232211A	FAJ P.C.B.	1	(EX,EH)(RTL)[SPC]
PCB6	SXPG232211A	FAJ P.C.B.	1	(X,XS,XD)(RTL)[SPC]
PCB6	SXPG232211A	FAJ P.C.B.	1	(XT,XA,GN)(RTL)[SPC]
PCB6	SXPG232221A	FAJ P.C.B.	1	(P,PC)(RTL)[SPC]
PCB7	SXPG232211B	JACK P.C.B.	1	(RTL)[SPC]
PCB8	SXPG232311A	ASUB P.C.B.	1	(RTL)[SPC]
PCB9	SXPG232311B	INV P.C.B.	1	(RTL)[SPC]
PCB10	SXPG232411A	MKB1 P.C.B.	1	(RTL)[SPC]
PCB11	SXPG232411B	MKB2 P.C.B.	1	(RTL)[SPC]
PCB12	SXPG232511	MKB3 P.C.B.	1	(RTL)[SPC]
PCB13	SXPG232811A	LCDL P.C.B.	1	(RTL)[SPC]
PCB14	SXPG232811B	LCDR P.C.B.	1	(RTL)[SPC]
PCB15	SXPG232811C	LCDC P.C.B.	1	(RTL)[SPC]
PCB16	SXPG232811D	HB P.C.B	1	(RTL)[SPC]
PCB17	SXPG232811E	MB P.C.B.	1	(RTL)[SPC]
PCB18	SXPG232941	ACP P.C.B.	1	(EG,EZ,EB)(RTL)[M]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
PCB18	SXPG232941	ACP P.C.B.	1	(GN)(RTL)[M]
PCB18	SXPG232941	ACP P.C.B.	1	(EX,EH)(RTL)[M]
PCB18	SXPG232951	ACP P.C.B.	1	(P,PC)(RTL)[M]
PCB18	SXPG232961	ACP P.C.B	1	(X,XS,XD,XT,XA)(RTL)[M]
Q1	2SA1015TPE2	TRANSISTOR	1	FAJ[SPC]
Q1	2SA830STPB	TRANSISTOR	1	CPL[SPC]
Q1	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q1	2SB709AR	TRANSISTOR	1	2SB0709AR MAIN[SPC]
Q1	2SD592ARS	TRANSISTOR	1	INV[SPC]
Q2	2SA1015TPE2	TRANSISTOR	1	FAJ[SPC]
Q2	2SA830STPB	TRANSISTOR	1	CPL[SPC]
Q2	2SD592ARS	TRANSISTOR	1	INV[SPC]
Q2	2SD601AQ	TRANSISTOR	1	2SD0601AQ MAIN[SPC]
Q2	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q3	2SA830STPB	TRANSISTOR	1	CPL[SPC]
Q3	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q3	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]
Q3	UN5216TX	TRANSISTOR	1	UNR521600L MAIN[SPC]
Q4	2SA830STPB	TRANSISTOR	1	CPL[SPC]
Q4	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q4	2SD592AR	TRANSISTOR	1	2SD0592AR FAJ[SPC]
Q5	2SA830STPB	TRANSISTOR	1	CPL[SPC]
Q5	2SB621A-R	TRANSISTOR	1	2SB0621AH FAJ[SPC]
Q5	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q6	2SA1015TPE2	TRANSISTOR	1	CPL[SPC]
Q6	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q7	2SA1015TPE2	TRANSISTOR	1	CPL[SPC]
Q7	2SB621A-R	TRANSISTOR	1	2SB0621AH FAJ[SPC]
Q7	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q8	2SA1015TPE2	TRANSISTOR	1	CPL[SPC]
Q8	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q8	SLA5007	TRANSISTOR	1	B1MADFC00001 FAJ[SPC]
Q9	2SA1015TPE2	TRANSISTOR	1	FAJ[SPC]
Q9	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q10	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q10	2SJ425	TRANSISTOR	1	B1DCFG000001 FAJ[SPC]
Q11	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q11	2SK1188	TRANSISTOR	1	B1DAKG000001 FAJ[SPC]
Q12	2SA1015TPE2	TRANSISTOR	1	FAJ[SPC]
Q12,13	2SB709AR	TRANSISTOR	2	2SB0709AR ASUB[SPC]
Q13,14	2SC1815TPE2	TRANSISTOR	2	FAJ[SPC]
Q14	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q15	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q15	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]
Q16	2SA1015TPE2	TRANSISTOR	1	FAJ[SPC]
Q16,17	2SB709AR	TRANSISTOR	2	2SB0709AR ASUB[SPC]
Q17,18	2SC1815TPE2	TRANSISTOR	2	FAJ[SPC]
Q18	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q19	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]
Q19	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q20	2SA830STPB	TRANSISTOR	1	CPR[SPC]
Q20	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q20	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q21	2SA830STPB	TRANSISTOR	1	CPR[SPC]
Q21	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]
Q21	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q22	2SA1015TPE2	TRANSISTOR	1	FAJ[SPC]
Q22	2SA830STPB	TRANSISTOR	1	CPR[SPC]
Q22	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q23	2SA830STPB	TRANSISTOR	1	CPR[SPC]
Q23	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]
Q23	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q24	2SA830STPB	TRANSISTOR	1	CPR[SPC]
Q24	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q24	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]
Q25	2SA830STPB	TRANSISTOR	1	CPR[SPC]
Q25	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q25	2SC1815TPE2	TRANSISTOR	1	FAJ[SPC]
Q26	2SB941	TRANSISTOR	1	2SB09410E FAJ[SPC]
Q26	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q27-29	2SB709AR	TRANSISTOR	3	2SB0709AR ASUB[SPC]
Q30,31	2SD601AQ	TRANSISTOR	2	2SD0601AQ ASUB[SPC]
Q32	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q33	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q34	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q35	2SD601AQ	TRANSISTOR	1	2SD0601AQ ASUB[SPC]
Q36	2SB709AR	TRANSISTOR	1	2SB0709AR ASUB[SPC]
Q101,02	UN511NTX	TRANSISTOR	2	UNR511N00L MAIN[SPC]
Q103	UN5216TX	TRANSISTOR	1	UNR521600L MAIN[SPC]
Q301	2SB952A	TRANSISTOR	1	MAIN[SPC]
Q302	2SC1815TPE2	TRANSISTOR	1	MAIN[SPC]
Q303	2SD601AQ	TRANSISTOR	1	2SD0601AQ MAIN[SPC]
Q304	2SD592ARS	TRANSISTOR	1	MAIN[SPC]
Q305	2SB952A	TRANSISTOR	1	MAIN[SPC]
Q306	2SC1815TPE2	TRANSISTOR	1	MAIN[SPC]
Q307	2SD601AQ	TRANSISTOR	1	2SD0601AQ MAIN[SPC]
Q309	2SB709AR	TRANSISTOR	1	2SB0709AR MAIN[SPC]
R1	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R1	ERDS2FJ220	1/4W 2.2K	1	LCDC[SPC]
R1	ERDS2FJ333	1/4W 33K	1	CPL[SPC]
R1	ERDS2FJ680	1/4W 68	1	FAJ[SPC]
R1	ERDS2TJ102	1/4W 1K	1	MKB3[SPC]
R1	ERJ6GEYJ102V	1/10W 1K	1	MAIN[SPC]
R1	ERJ6GEYJ472V	1/10W 4.7K	1	INV[SPC]
R2	ERDS2FJ472	1/4W 4.7K	1	LCDC[SPC]
R2	ERDS2T0	1/4W 0	1	CPL[SPC]
R2	ERDS2TJ101	1/4W 100	1	MKB3[SPC]
R2	ERJ6GEYJ104V	1/10W 100K	1	MAIN[SPC]
R2	ERJ6GEYJ472V	1/10W 4.7K	1	INV[SPC]
R3	ERDS2FJ101	1/4W 100	1	CPL[SPC]
R3	ERDS2TJ472	1/4W 4.7K	1	MKB3[SPC]
R3	ERJ6GEYJ104V	1/10W 100K	1	MAIN[SPC]
R3	ERX2SJ1R0	1	1	FAJ[SPC] ⚠
R4	ERDS2FJ101	1/4W 100	1	CPL[SPC]
R4	ERDS2FJ680	1/4W 68	1	FAJ[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4	ERDS2TJ472	1/4W 4.7K	1	MKB3[SPC]
R4	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R5	ER0S2TKF1001	1/4W 1K	1	EROS2TKF1001 HB[SPC]
R5	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R5	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R5	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R5	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R6	ER0S2TKF1001	1/4W 1K	1	EROS2TKF1001 HB[SPC]
R6	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R6	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R6	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R6	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R7	ERDS2FJ102	1/4W 1K	1	CPL[SPC]
R7	ERDS2FJ683	1/4W 68K	1	FAJ[SPC]
R7	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R8	ERDS2FJ102	1/4W 1K	1	CPL[SPC]
R8	ERDS2FJ683	1/4W 68K	1	FAJ[SPC]
R8	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R9	ERDS2FJ102	1/4W 1K	1	CPL[SPC]
R9	ERDS2FJ330	1/4W 33	1	FAJ[SPC]
R9	ERJ6GEY0R00V	1/10W 0	1	MAIN[SPC]
R10	ERDS2FJ102	1/4W 1K	1	CPL[SPC]
R10	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R11	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R11	ERDS2FJ102	1/4W 1K	1	CPL[SPC]
R11	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R11	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R12	ERDS2FJ102	1/4W 1K	1	CPL[SPC]
R12	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R12	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R13	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R13	ERDS2FJ151	1/4W 150	1	FAJ[SPC]
R13	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R14	ERD2FCJ6R8	6.8	1	FAJ[SPC] ⚠
R14	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R14	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R15	ERD2FCG100	10	1	FAJ[SPC] ⚠
R15	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R15	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R15	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R16	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R16	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R16	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R16	ERJ6GEYJ103V	1/10W 10K	1	MAIN[SPC]
R17	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R17	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R17	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R18	ERDS2FJ332	1/4W 3.3K	1	FAJ[SPC]
R18	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R18	ERJ6GEY0R00V	1/10W 0	1	MAIN[SPC]
R19	ERDS2FJ332	1/4W 3.3K	1	FAJ[SPC]
R19	ERDS2TJ103	1/4W 10K	1	CPL[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R19	ERJ6GEYJ105	1/10W 1M	1	ERJ6GEYJ105V MAIN[SPC]
R20	ERDS2FJ221	1/4W 220	1	FAJ[SPC]
R20	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R20	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R21	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R21	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R21	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R22	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R22	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R22	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R23	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R23	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R25	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R23	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R24	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R24	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R24	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R25	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R25	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R25	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R26	ERD2FCVG471	470	1	ASUB[SPC] ⚠
R26	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R26	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R26	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R27	ERDS2FJ331	1/4W 330	1	FAJ[SPC]
R27	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R27	ERJ6GEYJ473V	1/10W 47K	1	MAIN[SPC]
R28	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R28	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R28	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R29	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R29	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R30	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R30	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R30	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R31	ERD2FCVG101	10	1	ASUB[SPC] ⚠
R31	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R31	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R31	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R32	ERD2FCVG101	10	1	ASUB[SPC] ⚠
R32	ERDS2FJ332	1/4W 3.3K	1	FAJ[SPC]
R32	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R32	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R33	ERD2FCVG101	10	1	ASUB[SPC] ⚠
R33	ERDS2FJ332	1/4W 3.3K	1	FAJ[SPC]
R33	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R33	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R34	ERDS2FJ104	1/4W 100K	1	FAJ[SPC]
R34	ERDS2FJ680	1/4W 68	1	CPL[SPC]
R34	ERJ6GEYJ222V	1/10W 2.2K	1	MAIN[SPC]
R35	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R35	ERDS2FJ680	1/4W 68	1	CPL[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R35	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R36	ERDS2FJ333	1/4W 33K	1	FAJ[SPC]
R36	ERDS2TJ103	1/4W 10K	1	CPL[SPC]
R37	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R37	ERDS2FJ333	1/4W 33K	1	FAJ[SPC]
R37	ERJ6GEY0R00V	1/10W 0	1	MAIN[SPC]
R38	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R38	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R38	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R39	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R39	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R39	ERJ6GEYJ331V	1/10W 330	1	MAIN[SPC]
R40	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R40	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R40	ERJ6GEYJ471V	1/10W 470	1	MAIN[SPC]
R41	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R41	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R42	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R42	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R42	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R43	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R43	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R44	ERDS2FJ104	1/4W 100K	1	FAJ[SPC]
R44	ERJ6GEYJ330V	1/10W 33	1	MAIN[SPC]
R44	ERDS2FJ104	1/4W 100K	1	CPL[SPC]
R45	ERDS2FJ152	1/4W 1.5K	1	FAJ[SPC]
R45	ERJ6GEYJ102V	1/10W 1K	1	MAIN[SPC]
R46	ERDS2FJ563	1/4W 56K	1	FAJ[SPC]
R46	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R47	ERDS2FJ563	1/4W 56K	1	FAJ[SPC]
R48,49	ERDS2FJ222	1/4W 2.2K	2	FAJ[SPC]
R50	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R51,52	ERDS2TJ682T	1/4W 6.8K	2	FAJ[SPC]
R53	ERDS2FJ683	1/4W 68K	1	FAJ[SPC]
R54,55	ERDS2FJ333	1/4W 33K	2	FAJ[SPC]
R56	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R57	ERDS2FJ683	1/4W 68K	1	FAJ[SPC]
R58,59	ERDS2FJ104	1/4W 100K	2	FAJ[SPC]
R60,61	ERDS2FJ222	1/4W 2.2K	2	FAJ[SPC]
R62	ERDS2FJ683	1/4W 68K	1	FAJ[SPC]
R63	ERDS2TJ682T	1/4W 6.8K	1	FAJ[SPC]
R64	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R65,66	ERDS2FJ104	1/4W 100K	2	FAJ[SPC]
R67	ERDS2TJ682T	1/4W 6.8K	1	FAJ[SPC]
R68	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R69,70	ERDS2FJ123	1/4W 12K	2	FAJ[SPC]
R70	ERDS2TJ103	1/4W 10K	1	CPC[SPC]
R71	ERDS2FJ153	1/4W 15K	1	FAJ[SPC]
R71	ERDS2TJ103	1/4W 10K	1	CPC[SPC]
R72	ERDS2FJ473	1/4W 47K	1	CPC[SPC]
R72	ERDS2FJ473	1/4W 47K	1	FAJ[SPC]
R73	ERDS2FJ473	1/4W 47K	1	CPC[SPC]
R73,74	ERDS2FJ473	1/4W 47K	2	FAJ[SPC]
R75	ERDS2FJ153	1/4W 15K	1	FAJ[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R76,77	ERDS2FJ154	1/4W 150K	2	FAJ[SPC]
R78	ERDS2TJ183	1/4W 18K	1	FAJ[SPC]
R79	ERDS2TJ682T	1/4W 6.8K	1	FAJ[SPC]
R80	ERDS2FJ333	1/4W 33K	1	CPR[SPC]
R80	ERDS2TJ183	1/4W 18K	1	FAJ[SPC]
R81	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R81	ERDS2T0	1/4W 0	1	CPR[SPC]
R82	ERDS2FJ101	1/4W 100	1	CPR[SPC]
R82	ERDS2FJ154	1/4W 150K	1	FAJ[SPC]
R83	ERDS2FJ101	1/4W 100	1	CPR[SPC]
R83	ERDS2TJ272	1/4W 2.7K	1	FAJ[SPC]
R84	ERDS2FJ332	1/4W 3.3K	1	FAJ[SPC]
R84	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R85	ERDS2FJ102	1/4W 1K	1	FAJ[SPC]
R85	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R86	ERDS2FJ102	1/4W 1K	1	FAJ[SPC]
R86,87	ERDS2TJ103	1/4W 10K	2	CPR[SPC]
R87	ERDS2TJ272	1/4W 2.7K	1	FAJ[SPC]
R88	ERDS2FJ220	1/4W 22	1	FAJ[SPC]
R88	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R89	ERDS2FJ220	1/4W 22	1	FAJ[SPC]
R89	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R90	ERDS2FJ684	1/4W 680K	1	FAJ[SPC]
R90	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R91	ERDS2FJ684	1/4W 680K	1	FAJ[SPC]
R91,92	ERDS2TJ103	1/4W 10K	2	CPR[SPC]
R92	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R93	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R93	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R94	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R94	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R95	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R95	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R96	ERDS2FJ821	1/4W 820	1	FAJ[SPC]
R96	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R97	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R97	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R98	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R98	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R99	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R99	ERDS2TJ103	1/4W 10K	1	CPR[SPC]
R100	ERDS2FJ104	1/4W 100K	1	FAJ[SPC]
R100	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R101	ERDS2FJ104	1/4W 100K	1	FAJ[SPC]
R101	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R101	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R102	ERDS2FJ104	1/4W 100K	1	FAJ[SPC]
R102	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R102	ERJ6GEYJ102V	1/10W 1K	1	MAIN[SPC]
R103	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R103	ERDS2FJ821	1/4W 820	1	FAJ[SPC]
R103	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R104	ERDS2FJ222	1/4W 2.2K	1	FAJ[SPC]
R104	ERDS2FJ680	1/4W 68	1	CPR[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R104	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R105	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R105	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R105	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R106	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R106	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R106	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R107	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R107	ERG1SJ680	68	1	FAJ[SPC] ⚠
R107	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R108	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R108	ERG1SJ680	68	1	FAJ[SPC] ⚠
R108	ERJ6GEYJ103V	1/10W 10K	1	MAIN[SPC]
R109	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R109	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R109	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R110	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R110	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R110	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R111	ERDS2FJ332	1/4W 3.3K	1	FAJ[SPC]
R111	ERDS2FJ680	1/4W 68	1	CPR[SPC]
R111	ERJ6GEYJ105	1/10W 1M	1	ERJ6GEYJ105V MAIN[SPC]
R112	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R112	ERJ6GEYJ102V	1/10W 1K	1	MAIN[SPC]
R113	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R113	ERJ6GEYJ682V	1/10W 6.8K	1	MAIN[SPC]
R114	ERDS2TJ105	1/4W 1M	1	FAJ[SPC]
R114	ERJ6GEYJ103V	1/10W 10K	1	MAIN[SPC]
R115	ERD2FCG101	10	1	FAJ[SPC] ⚠
R115	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R116	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R116	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R117	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R117	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R118	ERDS2FJ333	1/4W 33K	1	FAJ[SPC]
R118	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R119	ERDS2FJ473	1/4W 47K	1	FAJ[SPC]
R119	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R120	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R120	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R121	ERDS2FJ223	1/4W 22K	1	FAJ[SPC]
R121	ERJ6GEYJ103V	1/10W 10K	1	MAIN[SPC]
R122	ERF2EXKR10V	0.1	1	FAJ[SPC] ⚠
R122	ERJ6GEYJ473V	1/10W 47K	1	MAIN[SPC]
R123	ERDS2FJ332	1/4W 3.3K	1	FAJ[SPC]
R124	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R125	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R125	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R126	ERDS2FJ333	1/4W 33K	1	FAJ[SPC]
R126	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R127	ERDS2TJ103	1/4W 10K	1	FAJ[SPC]
R127	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R128	ERF2EXKR10V	0.1	1	FAJ[SPC] ⚠
R128	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R129	ERF2EXKR10V	0.1	1	FAJ[SPC] ⚠
R129	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R130,31	ERDS2FJ472	1/4W 4.7K	2	FAJ[SPC]
R132,33	ERDS2FJ223	1/4W 22K	2	FAJ[SPC]
R133	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R134	ERDS2TJ823T	1/4W 82K	1	FAJ[SPC]
R134	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R135	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R135	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN(EZ,EB,EG)[SPC]
R135	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN(EH,EX,X,XS,XD)[SPC]
R135	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN(XT,XA,GN)[SPC]
R136	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R137	ERDS2TJ823T	1/4W 82K	1	FAJ[SPC]
R138	ERDS2FJ333	1/4W 33K	1	FAJ[SPC]
R138	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN(P)[SPC]
R139	ERDS2FJ472	1/4W 4.7K	1	FAJ[SPC]
R139	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R140,41	ERJ6GEY0R00V	1/10W 0	2	MAIN[SPC]
R143	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R144	ERDS2FJ102	1/4W 1K	1	FAJ[SPC]
R144	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R145	ERDS2FJ102	1/4W 1K	1	FAJ[SPC]
R145	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R146	ERDS2FJ102	1/4W 1K	1	FAJ[SPC]
R146	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R147	ERD2FCG220	22	1	FAJ[SPC] ⚠
R147	ERJ6GEYJ103V	1/10W 10K	1	MAIN[SPC]
R148	ERDS2FJ102	1/4W 1K	1	FAJ[SPC]
R201,02	ERJ6GEYJ470V	1/10W 47	2	MAIN[SPC]
R203	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R203	ERJ6GEYJ105	1/10W 1M	1	ERJ6GEYJ105V MAIN[SPC]
R204	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R204	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R205	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R205	ERJ6GEYJ220	1/10W 22	1	ERJ6GEYJ220V MAIN[SPC]
R206	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R206	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R207	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R207	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R208	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R208	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R209	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R209	ERJ6GEYJ101V	1/10W 100	1	MAIN[SPC]
R210	ERDS2FJ102	1/4W 1K	1	JACK[SPC]
R210,11	ERJ6GEYJ101V	1/10W 100	2	MAIN[SPC]
R301,02	ERJ6GEYJ472V	1/10W 4.7K	2	MAIN[SPC]
R303	ERJ6GEYJ103V	1/10W 10K	1	MAIN[SPC]
R304	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R305,06	BK2125LL241	INDUCTOR	2	MAIN[SPC]
R307-16	ERJ6GEYJ470V	1/10W 47	10	MAIN[SPC]
R317-22	ERJ6GEYJ101V	1/10W 100	6	MAIN[SPC]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R323	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R324	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R325	ERJ6GEYJ823	1/10W 82K	1	MAIN[M]
R326	QRSGBB471QT2	THERMISTOR	1	D4DC24710002 MAIN[SPC]
R327,28	ERJ6GEYJ472V	1/10W 4.7K	2	MAIN[SPC]
R329	ERJ6GEYJ154V	1/10W 150K	1	MAIN[SPC]
R330	ERJ6GEYJ471V	1/10W 470	1	MAIN[SPC]
R331,32	ERJ6GEYJ333V	1/10W 33K	2	MAIN[SPC]
R333-35	ERJ6GEYJ471V	1/10W 470	3	MAIN[SPC]
R336	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R337,38	ERJ6GEYJ151	1/10W 150	2	MAIN[SPC]
R339	ERG1SJ101	100	1	MAIN[SPC] ⚠
R340,41	ERJ6GEYJ151	1/10W 150	2	MAIN[SPC]
R342	ERJ6GEYJ470V	1/10W 47	1	MAIN[SPC]
R343	ERJ6GEYJ472V	1/10W 4.7K	1	MAIN[SPC]
R344	ERJ6GEYJ823	1/10W 82K	1	MAIN[M]
R345	QRSGBB471QT2	THERMISTOR	1	D4DC24710002 MAIN[SPC]
R346	ERJ6GEYJ154V	1/10W 150K	1	MAIN[SPC]
R347	ERJ6GEYJ471V	1/10W 470	1	MAIN[SPC]
R348	ERJ6GEYJ221V	1/10W 220	1	MAIN[SPC]
R349	ERG1SJ102	1K	1	MAIN[SPC] ⚠
R350	ERJ6GEYJ102V	1/10W 1K	1	MAIN[SPC]
R352	ERJ6GEYJ471V	1/10W 470	1	MAIN[SPC]
R353,54	ERJ6GEYJ472V	1/10W 4.7K	2	MAIN[SPC]
S1	EVQ21507K	SW,TACT	1	LCDL[SPC]
S1	QSPG1010AA	SW,POWER	1	[SPC]
S1	SSRG100A	SW,VOLTAGE SELECTOR	1	K0ZZ00000503 ACP(X,XS)[SPC] ⚠
S1	SSRG100A	SW,VOLTAGE SELECTOR	1	K0ZZ00000503 ACP(XD)[SPC] ⚠
S1	SSRG100A	SW,VOLTAGE SELECTOR	1	K0ZZ00000503 ACP(XA)[SPC] ⚠
S1	SSRG100A	SW,VOLTAGE SELECTOR	1	K0ZZ00000503 ACP(XT)[SPC] ⚠
S2-S6	EVQ21507K	SW,TACT	5	LCDL[SPC]
S7,S8	EVQ21507K	SW,TACT	2	CPL[SPC]
S9-14	EVQ21507K	SW,TACT	6	LCDL[SPC]
S15,16	EVQ21507K	SW,TACT	2	CPL[SPC]
S17-22	EVQ21507K	SW,TACT	6	LCDL[SPC]
S23,24	EVQ21507K	SW,TACT	2	CPL[SPC]
S25-31	EVQ21507K	SW,TACT	7	LCDL[SPC]
S32-69	EVQ21507K	SW,TACT	38	LCDC[SPC]
S70-78	EVQ21507K	SW,TACT	9	CPL[SPC]
S201	EVQ21507K	SW,TACT	1	LCDR[SPC]
S201	QSSGT010AA	SW,SLIDE	1	JACK[SPC]
S202-25	EVQ21507K	SW,TACT	24	LCDR[SPC]
S226-29	EVQ21507K	SW,TACT	4	CPC[SPC]
S230-33	EVQ21507K	SW,TACT	4	CPR[SPC]
S234-37	EVQ21507K	SW,TACT	4	CPC[SPC]
S238-41	EVQ21507K	SW,TACT	4	CPR[SPC]
S242-45	EVQ21507K	SW,TACT	4	CPC[SPC]
S246-49	EVQ21507K	SW,TACT	4	CPR[SPC]

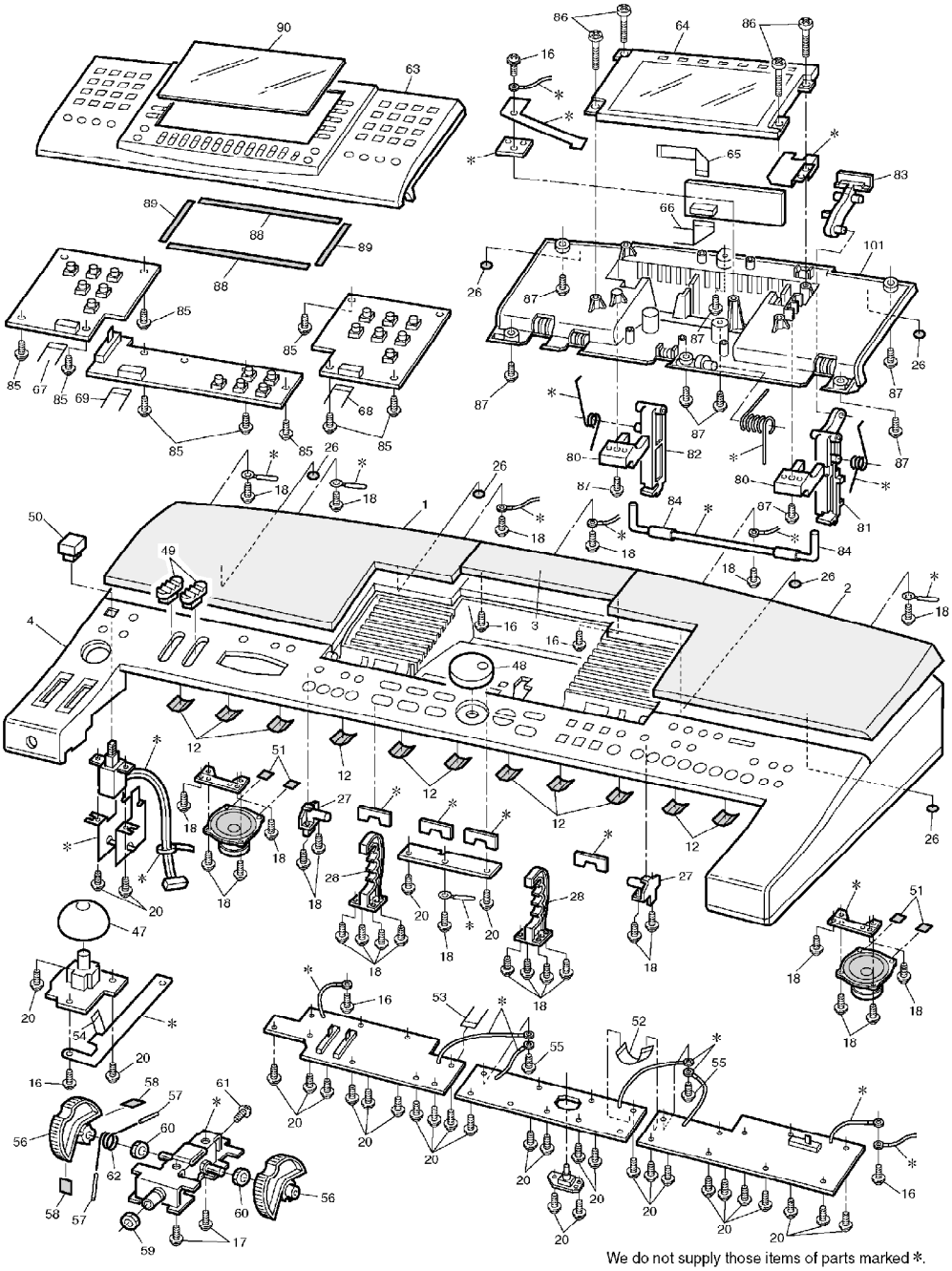
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
S250-53	EVQ21507K	SW,TACT	4	CPC[SPC]
S254-57	EVQ21507K	SW,TACT	4	CPR[SPC]
S258-60	EVQ21507K	SW,TACT	3	CPC[SPC]
S261-72	EVQ21507K	SW,TACT	12	CPR[SPC]
S500	QSRGT003AA	SW,ROTARY	1	ROT[SPC]
SP1	EASJ14PL11A3	14CM SP	1	[SPC]
SP2	EAS12P458JB3	12CM SP	2	[SPC]
SP3	EAS65PH31D3	6.5CM SP	2	[SPC]
T1	QTDG005A	POWER TRANSFORMER	1	G4F1A0000003 INV[SPC] ⚠
T1	QTPG1M056A	POWER TRANSFORMER	1	G4C6AED00002 (P,PC)[SPC] ⚠
T1	QTPG1M057A	POWER TRANSFORMER	1	G4C6AEK00003 (XT,XS)[SPC] ⚠
T1	QTPG1M057A	POWER TRANSFORMER	1	G4C6AEK00003 (X,XD)[SPC] ⚠
T1	QTPG1M057A	POWER TRANSFORMER	1	G4C6AEK00003 (XA)[SPC] ⚠
T1	QTPG1M058A	POWER TRANSFORMER	1	G4C6AEH00001 (EX,EZ)[SPC] ⚠
T1	QTPG1M058A	POWER TRANSFORMER	1	G4C6AEH00001 (EB,EG)[SPC] ⚠
T1	QTPG1M058A	POWER TRANSFORMER	1	G4C6AEH00001 (EH,GN)[SPC] ⚠
VR1	EVD07205B24G	VR,APC SEQUENCER VOLUME	1	CPL[SPC]
VR1	EVSG0E1B223A	VR,AFTER TOUCH SENSOR ADJ	1	MKB3[SPC]
VR1	QRVG20N01B14	VR,CONTRAST	1	LCDC[SPC]
VR2	QRVG22B01B54	VR,MODULATION	1	MB[SPC]
VR2	QRVG30P02B53	VR,MAIN VOLUME	1	CPL[SPC]
VR3	EVA07015B54G	VR,PITCH BEND	1	HB[SPC]
VR4	EVA07115B14G	VR,MODULATION	1	HB[SPC]
VR10	QRVG20N01B14	VR,MIC VOLUME	1	CPR[SPC]
W1	QEXGSS05120A	WIRE WITH CONNECTOR	1	[SPC]
W2	QEXGVH03050F	WIRE WITH CONNECTOR	1	[SPC] ⚠
W3	QEXGSA13075B	WIRE WITH CONNECTOR	1	[SPC]
W4	QEXGSS05010A	WIRE WITH CONNECTOR	1	[SPC]
W5	QEXGSA10080B	WIRE WITH CONNECTOR	1	[SPC]
W6	QEXGSS16040A	WIRE WITH CONNECTOR	1	[SPC]
W7	QEXGSA04010A	WIRE WITH CONNECTOR	2	[SPC]
W8	QEXGSS05055A	WIRE WITH CONNECTOR	1	[SPC]
W9	QEXGSS16050A	WIRE WITH CONNECTOR	1	[SPC]
W10	QEXGVH03055H	WIRE WITH CONNECTOR	1	[SPC]
W11	QEXGVH06090D	WIRE WITH CONNECTOR	1	[SPC]
W12	QEXGZA34060C	WIRE WITH CONNECTOR	1	[SPC]
X1	EFOEC4004T3	4MHZ OSCILLATOR	1	CPL[SPC]
X1	QSXG1I3200A	32MHZ CERAMIC OSCILLATOR	1	MAIN[SPC]
X10	EFOEC4004T3	4MHZ OSCILLATOR	1	CPR[SPC]
X101	QSXG2F2400A	24MHZ CERAMIC OSCILLATOR	1	H2A240500003 MAIN[SPC]
X201	QSXG1A1693A	16.93MHZ CERAMIC OSCILL.	1	MAIN[SPC]
X301	QSIG1I3000A	30MHZ CERAMIC OSCILLATOR	1	MAIN[M]

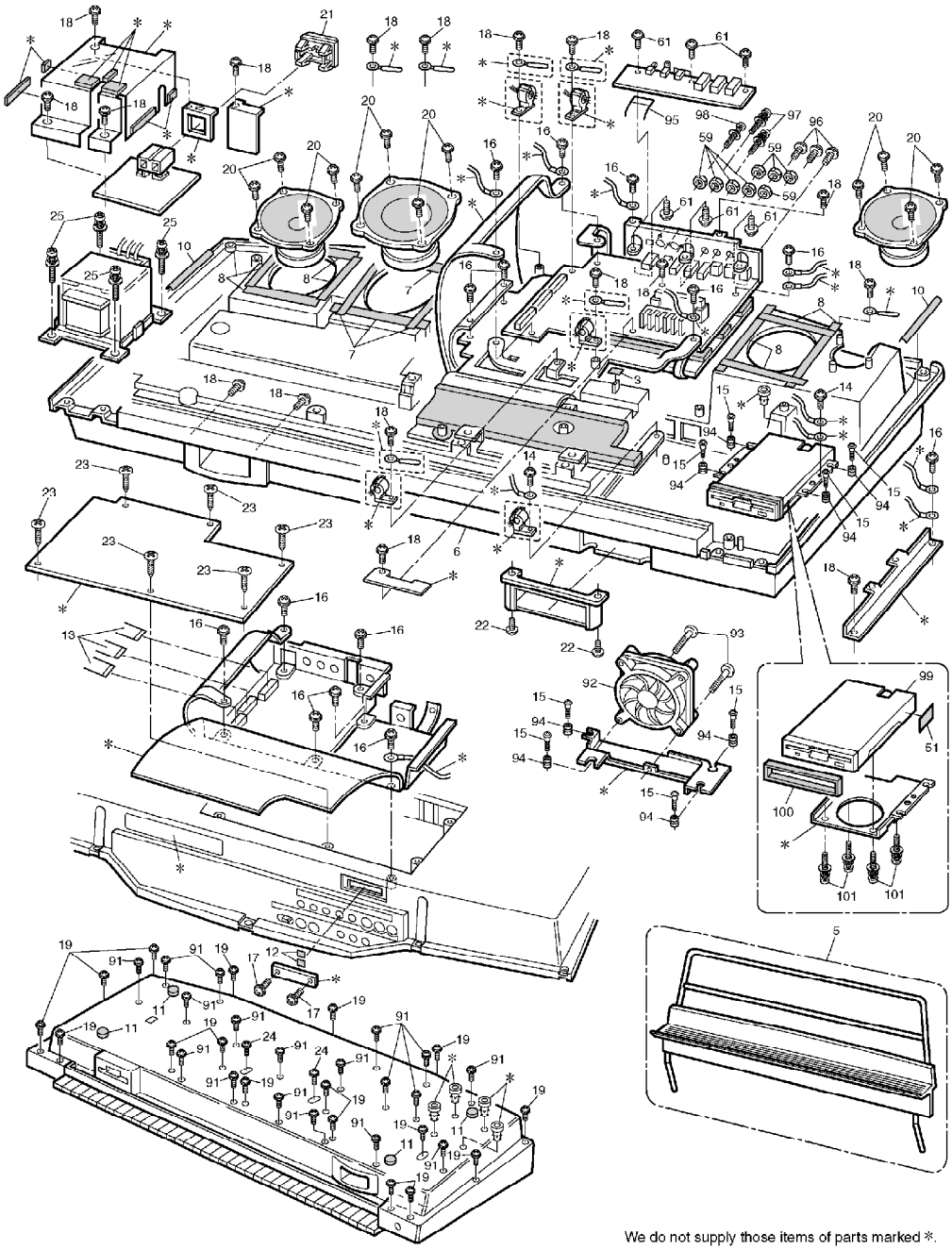
X301	QSIG13000A	30MHZ CERAMIC OSCILLATOR	1	MAIN[M]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Z1	EXBA10E472J	4.7K Ω ×8	1	MAIN[SPC]
Z1,Z2	EXBV8V220J	22 Ω ×4	2	INV[SPC]
Z2	EXBV8V470J	47 Ω ×4	1	D1H84704A008 MAIN[SPC]
Z3	EXBV8V220J	22 Ω ×4	1	INV[SPC]
Z3,Z4	EXBV8V470J	47 Ω ×4	2	D1H84704A008 MAIN[SPC]
Z5-Z9	EXBA10E472J	4.7K Ω ×8	5	MAIN[SPC]
Z10	EXBS8V101J	100 Ω ×4	1	MAIN[SPC]
Z11	EXBS8VR000	0 Ω ×4	1	MAIN[SPC]
Z13-16	EXBA10E472J	4.7K Ω ×8	4	MAIN[SPC]
Z101	EXBS8V102J	1K Ω ×4	1	MAIN[SPC]
Z102-04	EXBV8V470J	47 Ω ×4	3	D1H84704A008 MAIN[SPC]
Z105	EXBV8V103J	10K Ω ×4	1	D0GZ103J0001 MAIN[SPC]
Z106	EXBV8V470J	47 Ω ×4	1	D1H84704A008 MAIN[SPC]
Z107,08	EXBS8V470J	47 Ω ×4	2	MAIN[SPC]
Z109	EXBV8V470J	47 Ω ×4	1	D1H84704A008 MAIN[SPC]
Z110	EXBS8V101J	100 Ω ×4	1	MAIN[SPC]
Z111	EXBV8V470J	47 Ω ×4	1	D1H84704A008 MAIN[SPC]
Z112	EXBS8V470J	47 Ω ×4	1	MAIN[SPC]
Z113	EXBV8V470J	47 Ω ×4	1	D1H84704A008 MAIN[SPC]
Z114	EXBS8V472J	4.7K Ω ×4	1	MAIN[SPC]
Z115	EXBA10E472J	4.7K Ω ×8	1	MAIN[SPC]
Z116	EXBS8V472J	4.7K Ω ×4	1	MAIN[SPC]
Z117	EXBS8V103J	10K Ω ×4	1	MAIN[SPC]
Z201-03	EXBV8V470J	47 Ω ×4	3	D1H84704A008 MAIN[SPC]
Z204	EXBA10E472J	4.7K Ω ×8	1	MAIN[SPC]
Z205,06	EXBV8V472J	4.7K Ω ×4	2	D1H847240002 MAIN[SPC]
Z212,13	EXBV8V101J	100 Ω ×4	2	MAIN[SPC]
Z214,15	EXBV8V470J	47 Ω ×4	2	D1H84704A008 MAIN[SPC]
Z216	EXBV8V101J	100 Ω ×4	1	MAIN[SPC]
Z217,18	EXBV8V470J	47 Ω ×4	2	D1H84704A008 MAIN[SPC]
Z219-30	EXBV8V101J	100 Ω ×4	12	MAIN[SPC]
Z301	EXBS8V470J	47 Ω ×4	1	MAIN[SPC]
Z302,03	EXBV8V470J	47 Ω ×4	2	D1H84704A008 MAIN[SPC]
Z304-07	BK32164M601T	COIL	4	MAIN[SPC]
Z308	EXBA10E472J	4.7K Ω ×8	1	MAIN[SPC]
Z309,10	EXBS8V470J	47 Ω ×4	2	MAIN[SPC]
Z311,12	BK32164M601T	COIL	2	MAIN[SPC]
Z313	EXBA10E472J	4.7K Ω ×8	1	MAIN[SPC]
Z314,15	EXBV8V101J	100 Ω ×4	2	MAIN[SPC]
Z316	EXBV8V470J	47 Ω ×4	1	D1H84704A008 MAIN[SPC]
Z317	EXBV8V220J	22 Ω ×4	1	MAIN[SPC]
ZC1	ECJRVC1H101K	100P×4	1	MAIN[SPC]
ZC101-07	ECJRVC1H470K	47P×4	7	MAIN[SPC]
ZC108-10	ECJRVC1H101K	100P×4	3	MAIN[SPC]
ZC201	ECJRVC1H470K	47P×4	1	MAIN[SPC]

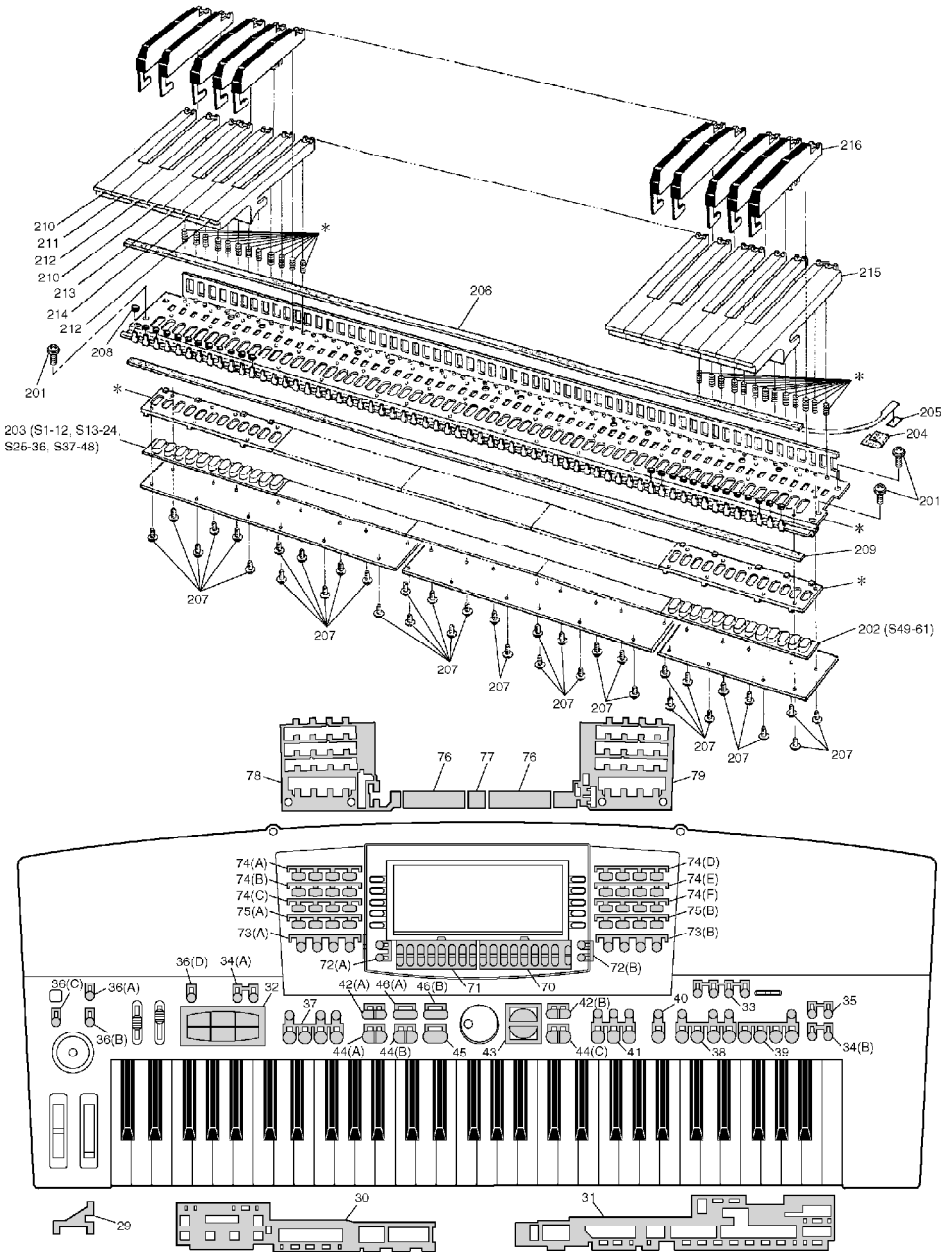
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
ZC202	ECJRVC1H470K	47P×4	1	MAIN[SPC]
ZC203	ECJRVC1H470K	47P×4	1	MAIN[SPC]

21. Cabinet Parts Location





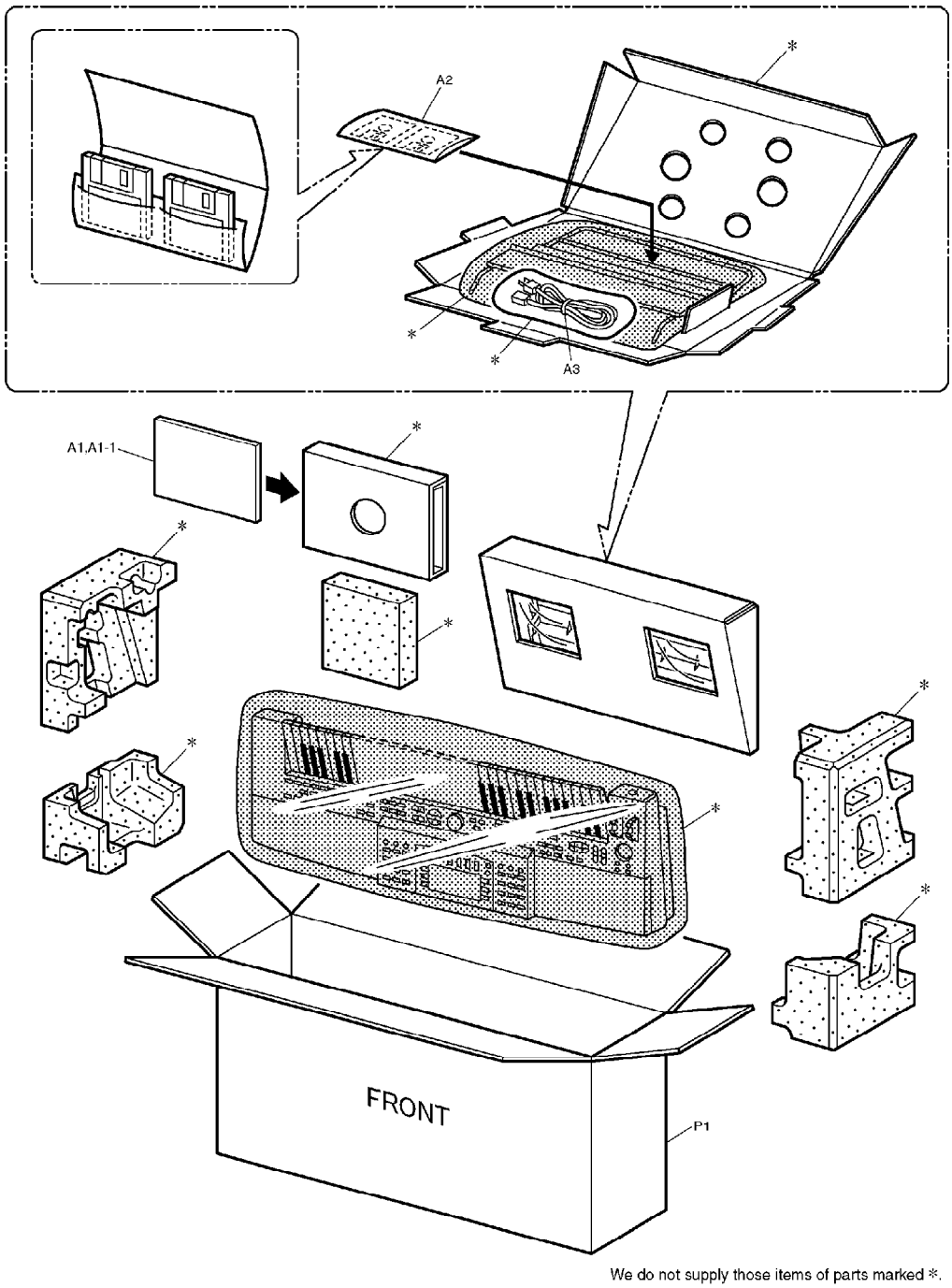
22. Manual Keyboard Parts and Control Panel Parts Location



Notes) • We do not supply those items parts marked ＊.
• Since SW consists of buttons and P.C.B.'s, we do not supply it as an individual part.

REF.NO.	DESCRIPTION
32	PERFORMANCE PADS(1-4,5 SOLO,6 SOLO)
33	GLOBAL EFFECT(CHORUS,MULTI,REVERB,MIC)
34(A)	PERFORMANCE PADS(BANK,STOP)
34(B)	PROGRAM MENUS,DISK
35	SEQUENCER(PLAY,EASY REC)
36(A)	DEMO
36(B)	SOUND CONTROLLER(MODE)
36(C)	SOUND CONTROLLER(RESET)
36(D)	PERFORMANCE PADS(AUTO SETTING)
37	MUSIC STYLE ARRANGER,ONE TOUGH PLAY,SPLIT POINT,VARIATION& MSA(1,2,3,4)
38	SET,PANEL MEMORY(1,2,3,4,)NEXT BANK,BANK VIEW
39	PANEL MEMORY(5,6,7,8),CUSTOM PANEL
40	SOLO,TECHNI-CHORD
41	PART SELECT/CONDUCTOR(LEFT,RIGHT1,RIGHT2)
42(A)	FADE IN/OUT
42(B)	TRANSPOSE +,-
43	MUSIC STYLIST,FAVORITES
44(A)	SEQUENCER RESET, COUNT INTRO,FILL IN 1,2
44(B)	INTRO&ENDING 1,2
44(C)	R1/R2 OCTAVE
45	START/STOP,1,2,3,4 BEAT
46(A)	TAP TEMPO
46(B)	SYNCHRO&BREAK
70	PAGE
71	MUTE
72(A)	OTHER PARTS/TR,HELP
72(B)	DISPLAY HOLD,EXIT
73(A)	SOUND ARRANGER(SET,OFF/ON),AUTO PLAY CHORD(MODE,OFF/ON)
73(B)	PART EFFECT(SUSTAIN,DIGITAL EFFECT,SOUND DSP,VARIATION)
74(A)	RHYTHM GROUP(8&16 BEAT,ROCK&POP,BALLAD,SOUL&FUNK)
74(B)	RHYTHM GROUP(MODERN DANCE,GOSPEL&BLUES,COUNTRY& WESTERN,MARCH&WALTZ)
74(C)	RHYTHM GROUP(BIG BAND&SWING,JAZZ COMBO,BALLROOM,LATIN&WORLD)
74(D)	SOUND GROUP(PIANO,GUITAR,STRINGS&VOCAL,BRASS)
74(E)	SOUND GROUP(MALLET&ORCH PERC,WORLD,ORGAN&ACCORDION,SAX& WOODWIND)
74(F)	SOUND GROUP(PAD,SYNTH,BASS,DRUM KITS)
75(A)	RHYTHM GROUP(ENTERTAINER,MOVIE&SHOW,CUSTOM,MEMORY LOAD)
75(B)	SOUND GROUP(DIGITAL DRAWBAR,ACCODION REGISTER,SOUND EXPLORER,MEMORY)

23. Packaging



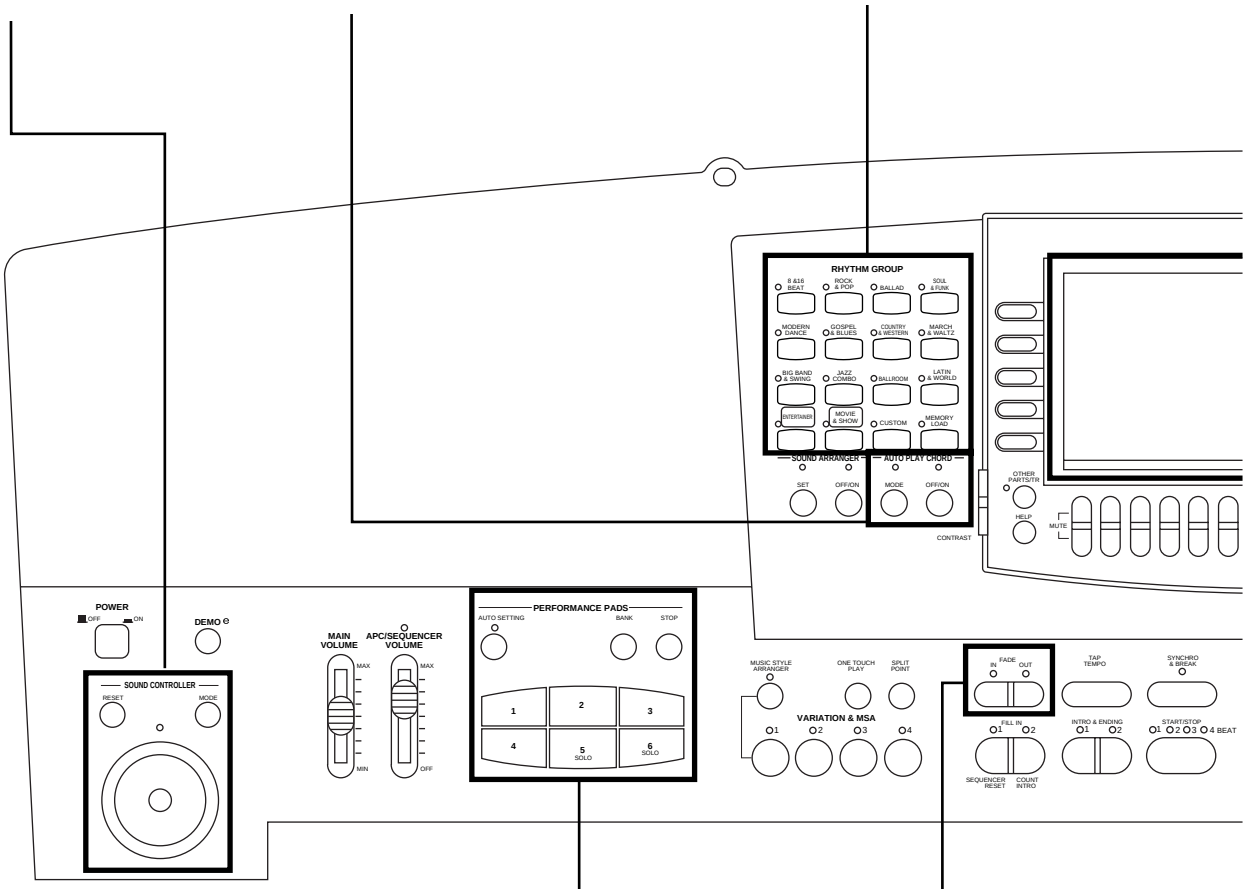
We do not supply those items of parts marked *.

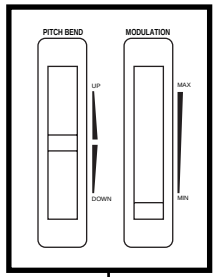
H010100000 KA/HH

SOUND CONTROLLER
Modify the sound in realtime with the trackball.

AUTO PLAY CHORD
Add an automatic accompaniment to your selected rhythm.

RHYTHM GROUP
Various rhythm patterns are available for each rhythm group.





PERFORMANCE PADS
Add various phrases to your performance with the pad buttons.

FADE IN/OUT
Begin your song with a slowly increasing volume, or end it by having the sound slowly fade away.

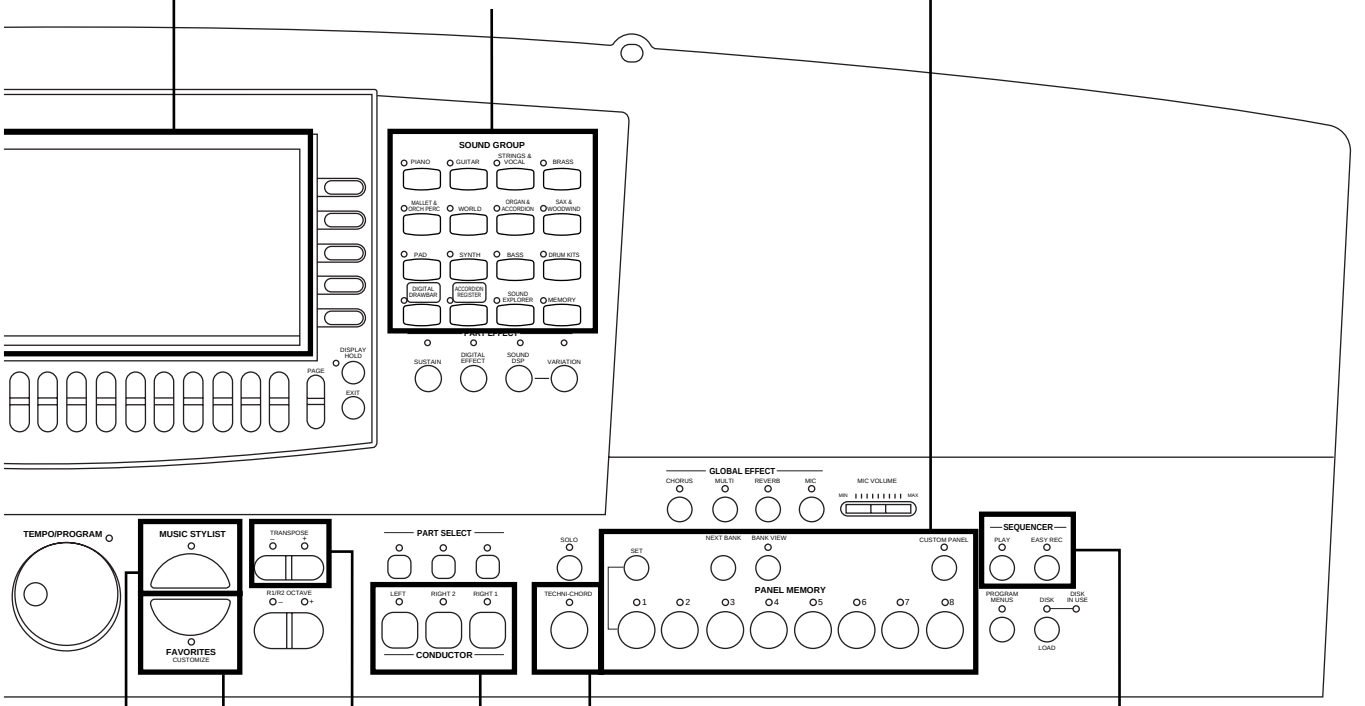
PITCH BEND/MODULATION
The **PITCH BEND** wheel allows a "sliding" change in the pitch. The **MODULATION** wheel is used to add vibrato to the sound.

DISPLAY
Displays performance information, function settings and other messages.

- Adjust the readability with the **CONTRAST** control at the lower left side of the display.

SOUND GROUP
Various sounds are available for each sound group.

PANEL MEMORY
Store the panel settings, then recall them instantaneously just by pressing a button or two.



TRANSPOSE
Raise or lower the key of the entire keyboard.

CONDUCTOR
Assign a different sound to each part, then assign the desired parts to sections of the keyboard.

SEQUENCER
Record and play back your performance.

MUSIC STYLIST
You can choose to have all the settings of this instrument automatically set.

FAVORITES
You can record four different special displays of your favorite sounds and rhythms, functions, etc.

TECHNI-CHORD
Block chords are automatically added to the melody.

This Keyboard has many settable functions and storable memories. However, you can return the settings and memory to the factory-preset status.

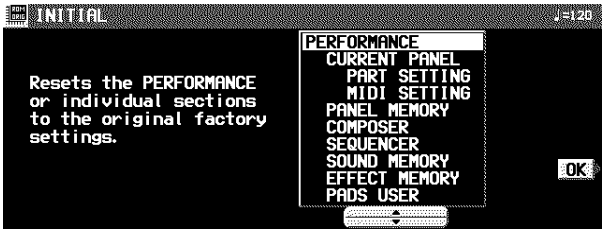
INITIAL

1. Press the **PROGRAM MENUS** button to turn it on.

- The display changes to the following.

2. Select CONTROL.
- The display looks similar to the following.

3. Select INITIAL.
- This display changes to the following.

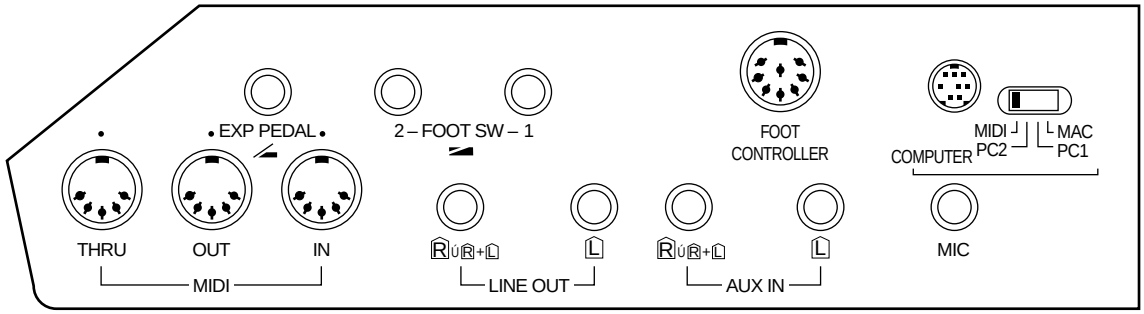


4. Use the ▲ and ▼ buttons to select the desired type of initialization.
- PERFORMANCE includes all the items which are listed below it.

5. Press the OK button.
- The display changes to the confirmation display. Press the YES button if you wish to execute the initialization. Press the NO button if you wish to cancel the procedure.

- Initialization begins. When initialization is completed, "COMPLETED!" is shown on the display and the Keyboard returns to the normal performance mode.
- The USER MIDI, FAVORITES, HOME PAGE settings and CUSTOM styles are not initialized by this procedure.

You can also reset all the PERFORMANCE items with the following procedure:
Turn off the power to this instrument once. Then, while pressing the three lower left buttons in the **RHYTHM GROUP** section (**ENTERTAINER**, **MOVIE & SHOW** and **CUSTOM**) at the same time, turn the power on again.



EXP PEDAL
The optional SZ-E2 Expression Pedal (sold separately) can be connected to this terminal to control the volume.

FOOT SW 1, 2
An optional SZ-P1 Foot Switch (sold separately) can be connected to each terminal to control various functions.

AUX IN (input level 0.5 Vrms, 6 kΩ)
Other instruments such as a sound generator can be connected to this terminal, and the sound will be output from the Keyboard's speakers. To receive monaural sound, connect the other instrument to the **R/R+L** terminal. (Do not connect the **L** terminal.)

LINE OUT (output level 1.5 Vrms, 600 Ω)
By connecting an external high-power amplifier, the sound can be reproduced at a high volume. To output monaural sound, connect the external equipment to the **R/R+L** terminal. (Do not connect the **L** terminal.)

MIDI
These terminals are for connection to another MIDI instrument.

FOOT CONTROLLER
An optional SZ-FC2 Foot Controller (sold separately) can be connected to this terminal to control various functions.

MIC
A microphone can be connected to this terminal for voice output through the speakers.

- The effects applied to the MIC INPUT and the microphone volume can be set.

COMPUTER
By connecting this terminal to the serial port of a computer, performance data can be exchanged. Use the switch to select the type of computer.

- Be sure that the power to this instrument is turned off when connecting to a computer or when changing the switch setting.

> **Caution:**
> Failure to turn off the power before changing the switch setting may result in malfunction.

- When no computer is connected, or when a MIDI interface is used, the switch should be set to **MIDI**.

Connection to a Macintosh series computer
Use an ACCESSORY CABLE (SZ-JJAP1: sold separately) to connect the **COMPUTER** terminal of this instrument to the modem port or printer port of a Macintosh Series computer. Set the switch to **MAC**.

- Set the MIDI interface clock of the Macintosh software to 1 MHz.
- Do not remove the core at either end of the cable.

Connection to a PC
Use an ACCESSORY CABLE (SZ-JJAT1: sold separately) to connect the **COMPUTER** terminal of this instrument to the RS232C terminal of a PC. Set the switch to **PC2**.

- The MIDI driver included with the cable should be installed in the computer. (Refer to the manual accompanying the cable.) This MIDI driver is not compatible with Windows NT or Windows 2000.
- Do not remove the core at either end of the cable.

* All product and company names are trademarks or registered trademarks of thir respective owners.

The following changes in performance may occur in the Technics Keyboard but do not indicate trouble.

	Phenomenon	Remedy
Sounds and effects	The buttons, keys, etc. malfunction.	• Turn off the **POWER** button once, then turn it on again. If this procedure is not successful, turn off the **POWER** button once. Then, while pressing the three lower left buttons in the **RHYTHM GROUP** section (**ENTERTAINER**, **MOVIE & SHOW** and **CUSTOM**) at the same time, turn the **POWER** button on again. (Note that, in this case, all programmable settings, functions and memories return to their factory-preset status.)
	No sound is produced when the keys are pressed.	• The **MAIN VOLUME** is at the minimum setting. Adjust the volume with the **MAIN VOLUME** control. • The volumes for the selected parts are set to the minimum levels. Use the balance buttons to set the volumes of the relevant parts to appropriate levels. • The part is muted. • The LOCAL CONTROL for a part performed on the keyboard is set to OFF. Set the LOCAL CONTROL to ON.
	Only percussive instrument sounds are produced when the keyboard is played.	• In the **SOUND GROUP** section, the **DRUM KITS** button is on.
	The volume is very low when the keyboard is played.	• The volume setting in the **SEQUENCER** contents is very low. Follow the INITIAL procedure to reset the settings.
	The sound you hear is different from the sound you selected.	• This sometimes occurs when you play back **SEQUENCER** or **COMPOSER** data which was created on a different model, or when MIDI data is received from a connected instrument. Select the desired sounds again.
Rhythm	The rhythm does not start.	• The **DRUMS** volume is set to the minimum level. Use the balance buttons to set the **DRUMS** volume to an appropriate level. • A **SEQUENCER PLAY** button is on. When you are not playing back the **SEQUENCER** performance, turn off the **SEQUENCER PLAY** button. • CLOCK is set to MIDI. Set CLOCK to INTERNAL.
AUTO PLAY CHORD	No sound is produced for the automatic accompaniment, or only the sounds of some parts are produced.	• An **ACCOMP** part does not sound if its corresponding volume is set to the minimum level. Use the respective balance buttons to set the **ACCOMP 1**–**5** volumes to appropriate levels.
SEQUENCER	Storage is not possible.	• The remaining memory capacity of the **SEQUENCER** is 0. Follow the SONG CLEAR or TRACK CLEAR procedure to erase the memory.
	The playback measure indication is different from when the performance was recorded.	• The number of measures corresponds to the time signature of the rhythm selected at the start of recording. To change the rhythm in the middle of the song, record the rhythm change in the RHYTHM part.

	Phenomenon	Remedy
COMPOSER	Storage is not possible.	• The remaining memory capacity of the **COMPOSER** is 0.
	Setting the time signature is not possible.	• The time signature cannot be changed for a pattern which is currently recorded in the **COMPOSER**. If you wish to change the time signature, first follow the procedure to clear the memory.
	The playback timing of the rhythm pattern is different from the timing with which it was recorded.	• The QUANTIZE function was on when the pattern was recorded and the timing was automatically corrected. Set the quantize level to a smaller note unit or to OFF when recording.
Disk Drive	The Disk Drive produces a noise during recording or playback.	• This occurs when the Disk Drive is reading a disk. It does not indicate a problem.
	When the procedure to load from a disk is performed, the contents of the keyboard memory are erased.	• When performing the load operation from a disk, the keyboard memory changes to that of the data loaded from the disk. If you wish to preserve a song which is stored in the keyboard memory, save it on a disk before performing the load procedure.
MIDI	Data cannot be exchanged through MIDI terminals.	• The switch for the **COMPUTER** terminal is not set to **MIDI**. Turn off the power to this instrument and set the switch to **MIDI**. • Match the channels on the transmitting side and the receiving side.
	The sound quavers or is distorted.	• When the **COMPUTER** terminal or both the **MIDI IN** and **OUT** terminals are connected to a computer, depending on the computer software the received data may be sent back to the instrument just as it is. Because of this the sound generated from the keys and the sound generated from the returned data are both produced, causing undesirable effects, such as the sounds canceling each other out, for example. In this case, either change the software settings to prevent received data from being returned, or set the MIDI LOCAL CONTROL to off.
Other	Noise from a radio or TV can be heard.	• This sometimes occurs when electrical equipment such as a radio or TV is used near the instrument. Try moving such electrical equipment further away from the instrument. • The sound may be coming from a nearby broadcast station or amateur radio station. If the sound is bothersome, consult your dealer or service center.
	The cabinet becomes warm during use.	• This instrument has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble.

No.	Contents
00	The data on the disk that you are using is for a different product.
01	An error has occurred while the disk was loading. Please try again!
02	There is no disk in the Disk Drive.
03	The file that you tried to load is empty.
05	An error has occurred while the disk was saving. Please try again!
06	The disk that you are using is write protected. Please remove the write protection and try again.
07	The disk that you are using is full. Please use another disk.
08	An error has occurred while the disk was formatting. The disk that you are using may be faulty. Please try formatting another disk.
10	The data is already copy protected.
15	The song you are trying to save is empty.
16	This STANDARD MIDI FILE is incompatible with this instrument and cannot be loaded.
17	This is not a STANDARD MIDI FILE.
18	The timebase (PPQ resolution) that you tried to load is not 24/48/96/192/288/384 PPQ.
20	A problem has occurred with your **SEQUENCER** Data. This might be due to a damaged or faulty disk.
21	Memory full
22	It is necessary to press REC STOP to complete this procedure.
23	It is impossible to change the time signature because it has already been set in the existing tracks.
24	A rhythm track already exists. It is impossible to assign two tracks to rhythm.
25	It is only possible to change the velocity on a melody track.

No.	Contents
26	It is only possible to merge melody tracks. Tracks such as rhythm, chord and control cannot be merged.
27	It is only possible to copy melody tracks. Tracks such as rhythm, chord and control cannot be copied.
28	This song is too long to be saved as a MIDI file.
29	The MIDI file that you have tried to load exceeds the memory capacity of this instrument and cannot be played. The **SEQUENCER** memory has been cleared.
30	It is not possible to change the time signature of a **COMPOSER** pattern after it has been recorded. If you want to proceed, you must first clear the entire **COMPOSER** pattern.
31	The time signature of the pattern from which you are copying is different from the **COMPOSER** memory that you are using. Either: Change the time signature of the **COMPOSER** memory or: Copy from a pattern that has the same time signature
32	Memory full
33	Select a Track before setting parameters for AUTO PUNCH RECORD.
43	The file that you are trying to load was saved on a previous KN keyboard. It is only possible to load using the “PERFORMANCE” option.
44	It is impossible to edit a Drum Kit. Please select a different sound from any group except Keyboard Percussion.
46	It is only possible to insert MELODY Tracks. Tracks such as RHYTHM, CHORD and CONTROL cannot be inserted.
47	This procedure is not possible with a composer pattern or the metronome. Please select a preset rhythm pattern.
54	It is not possible to record using preset banks, compile banks, or control banks. Please select one of the user banks.

No.	Contents
55	Special tracks such as CHORD (APC), RHY and CTL exist in the song from which you are copying and are incompatible with the destination song because it is in the GM mode.
56	AUTO PUNCH recording has been unsuccessful because SEQUENCER operation was interrupted before the PUNCH OUT measure was reached.
58	The song that you have tried to load exceeds this instrument's available memory and cannot be loaded. The selected song memory has been cleared.
62	The computer connection is not active because the computer port switch is set to MIDI. Please turn the power off, set the switch to the desired setting and turn the power back on.
63	This Bitmap is in the wrong format for the KN and cannot be loaded. See the Owners Manual for more details.
64	Please select the Panel Memory that you want to name.
65	It is not possible to use the CHORD FINDER in this mode. Please select CHORD FINDER from HOME page or CHORD STEP RECORD page.
66	SOLO pads are special pads which include Chord information. Pleases use SOLO pads when the rhythm and accompaniment is playing.
67	There are no APC or CHORD tracks. Select and APC track or CHORD track, and try again.
68	It is not possible to record directly into the SOLO pads. Record on the SEQUENCER and Copy the melody and chord information into a SOLO pad.
69	It is not possible to delete all measures.
70	It is not possible to insert over 16 measures in a PATTERN.
71	It is not possible to set the start measure to the measures you set to copy.

Keyboard [SX-KN6500]

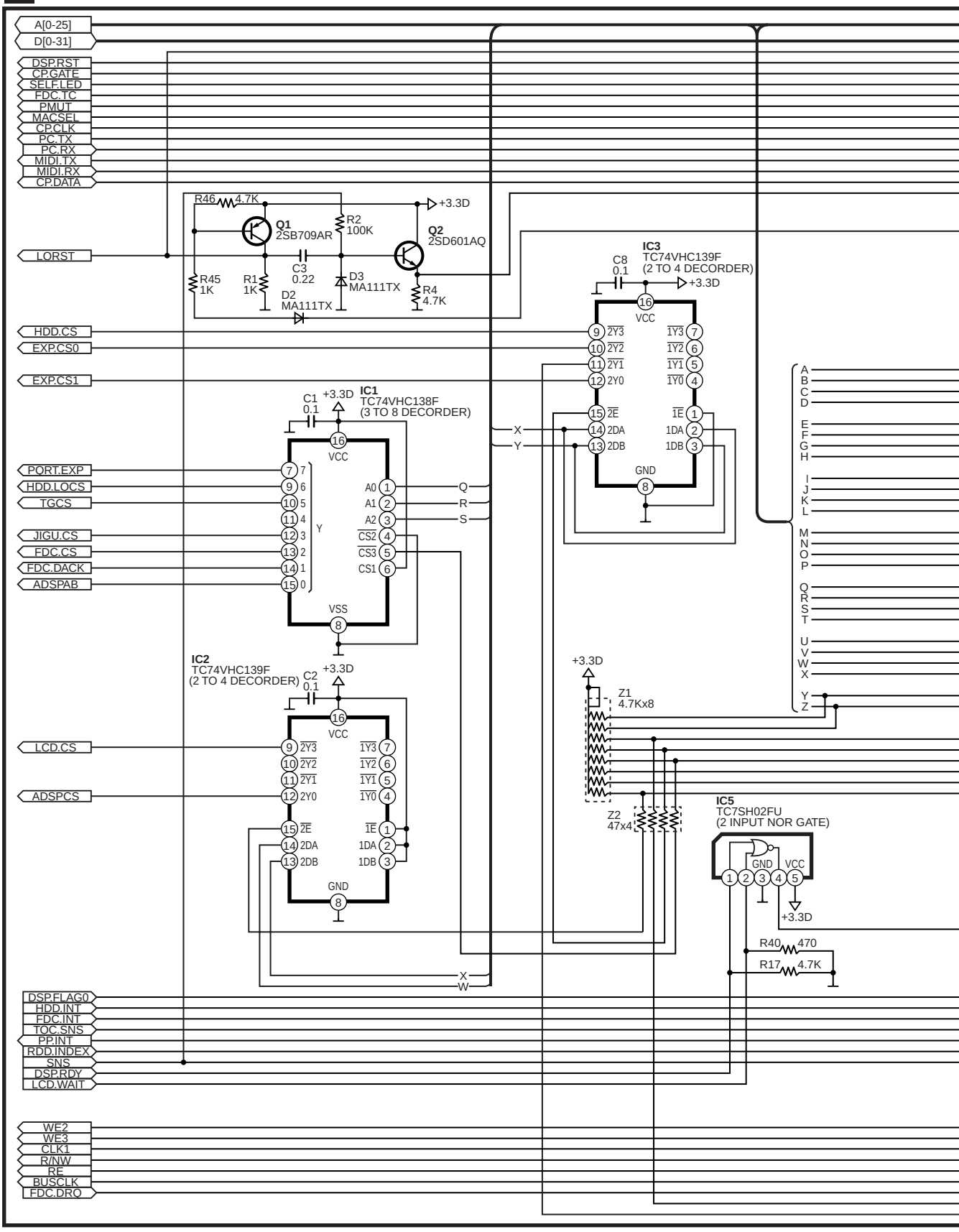
Function		Transmitted	Recognized	Remarks
Basic Channel	Default	1-16	1-16	Assigned to the part.
	Changed	1-16	1-16	
Mode	Default	3	Mode 3	OMNI OFF, POLY MODE
	Messages	Mode 3, 4 (M=1)	Mode 3, 4 (M=1)	* M=1 only
	Altered	—	—	
Note Number		0-127	0-127	
	True voice	—	0-127	
Velocity	Note ON	○	○	
	Note OFF	×	×	
After Touch	Key's	×	×	
	Ch's	○ × *	○ × *	
Pitch Bend		○ × *	○ × *	
Control Change	0,32	○ × *	○ × *	Bank Select MSB, LSB
	1	○ × *	○ × *	Modulation
	5	○	○	Portamento time
	6,38	○ × *	○ × *	Data entry MSB, LSB
	7	○ × *	○ × *	Volume
	10	○ × *	○ × *	Panpot
	11	○ × *	○ × *	Expression
	12,13	○ × *	○ × *	Sound DSP
	64	○ × *	○ × *	Sustain
	65	○	○	Portamento on / off
	66	○	○	Sostenuto
	67	○	○	Soft Pedal
	71~78	○ × *	○ × *	Sound controllers
	80~83	○	○	Part Equalizer
	91~95	○ × *	○ × *	Effect 1~5 Depth
	98,99	○ × *	○ × *	NRPN
	100,101	○ × *	○ × *	RPN
Prog Change		○ × *	○ × *	
	True #	—	0-127	
System exclusive		○ × *	○ × *	
System common	Song Pos	○ × *	○ × *	
	Song Sel	○ × *	○ × *	
	Tune	×	×	
System Real Time	Clock	○ × *	○ × *	
	Commands	○ × *	○ × *	Start / Stop, continue
Aux Messages	Local ON / OFF	×	×	
	All notes OFF	×	○	
	Active Sense	○	○	
	Reset	×	×	
Notes		○ × * ····· Whether or not the data for each of these items is transmitted / received can be set.		

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO ○: Yes
Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO ×: No

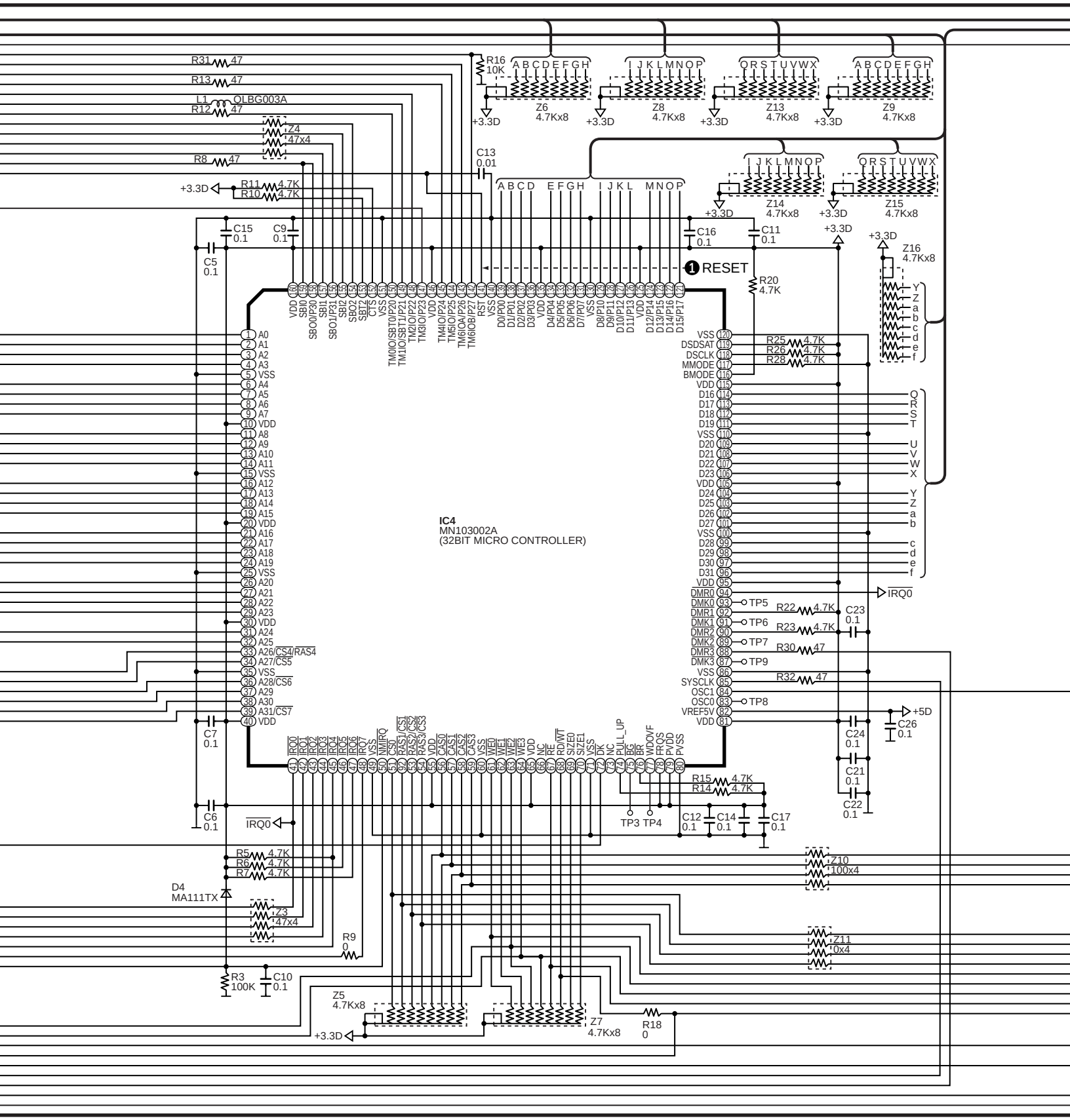
SCHEMATIC DIAGRAM-1

NOTE:
The number which noted at the connectors on the schematic diagram as
"SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2"
indicates the schematic diagram serial number located on the left corner in the schematic diagram.

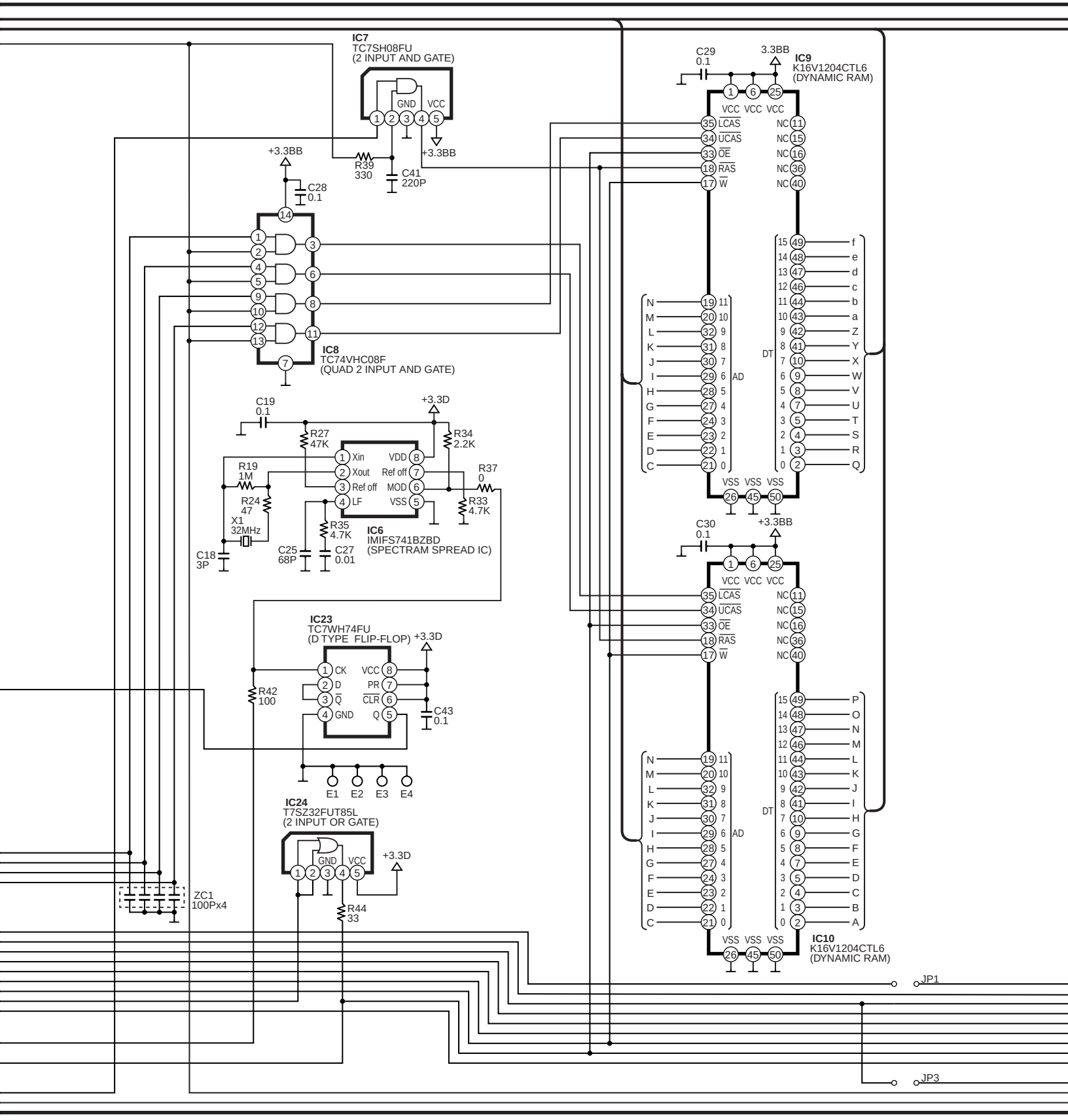
A MAIN CPU CIRCUIT



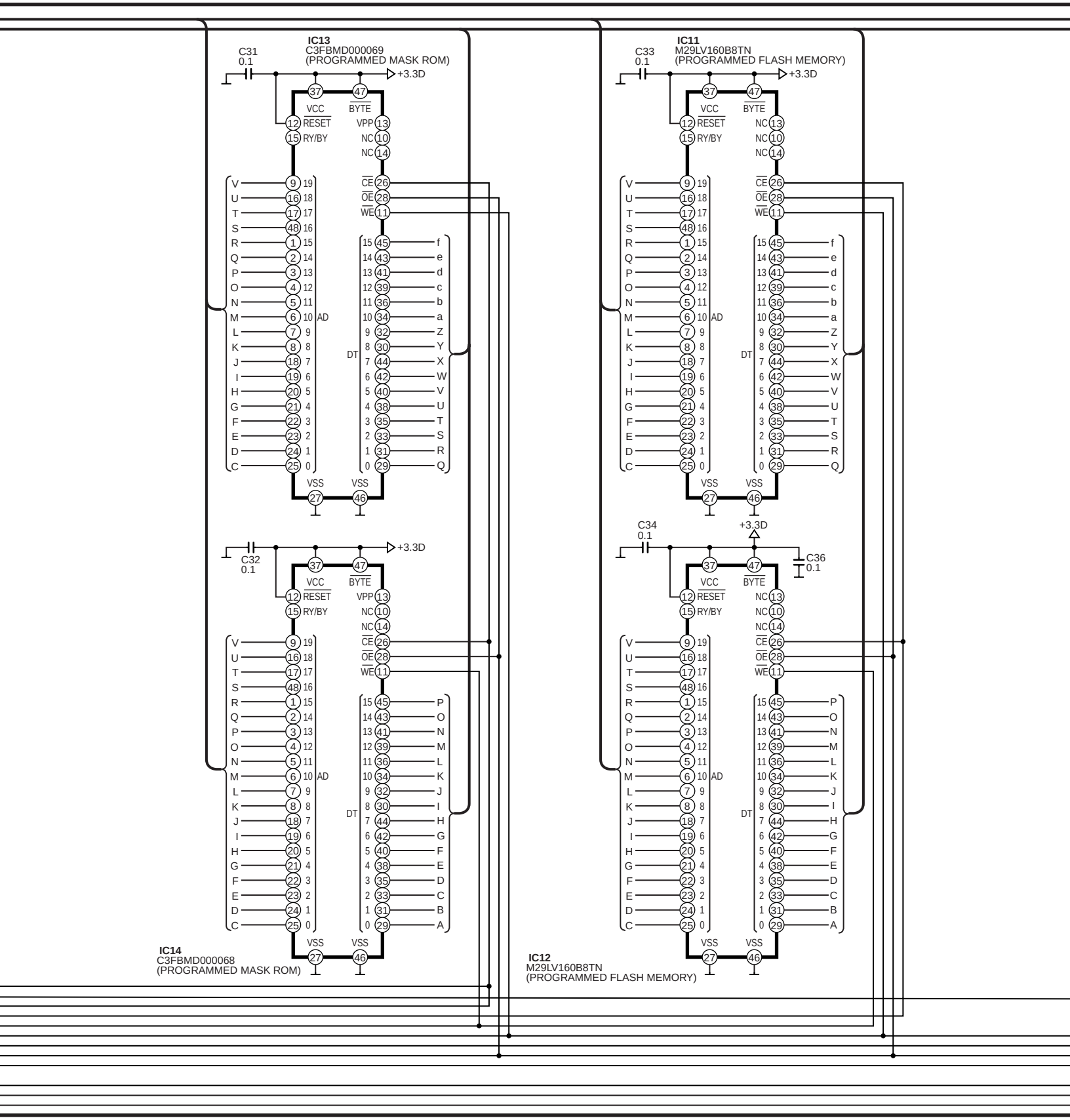
SCHEMATIC DIAGRAM-2



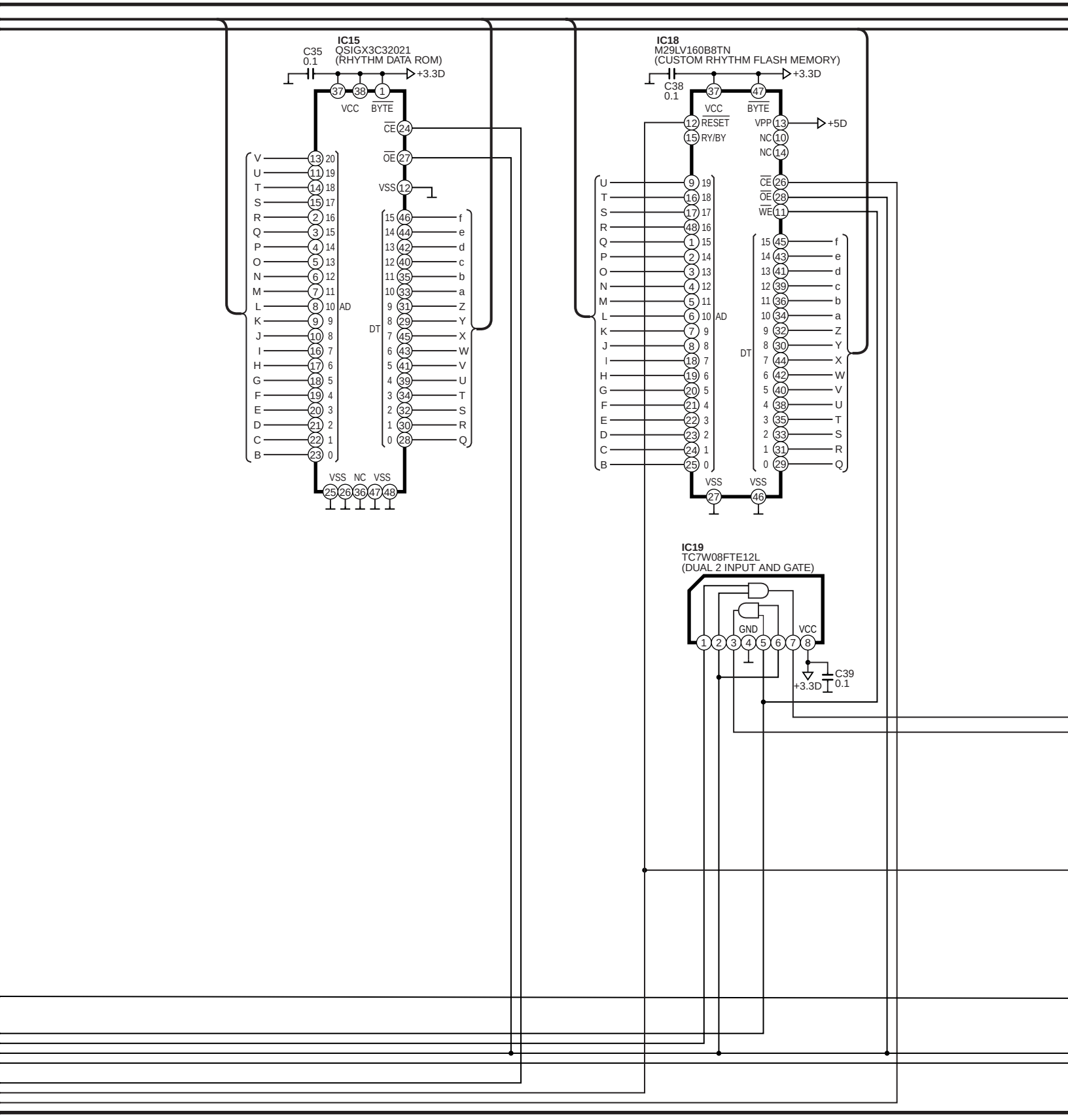
SCHEMATIC DIAGRAM-3



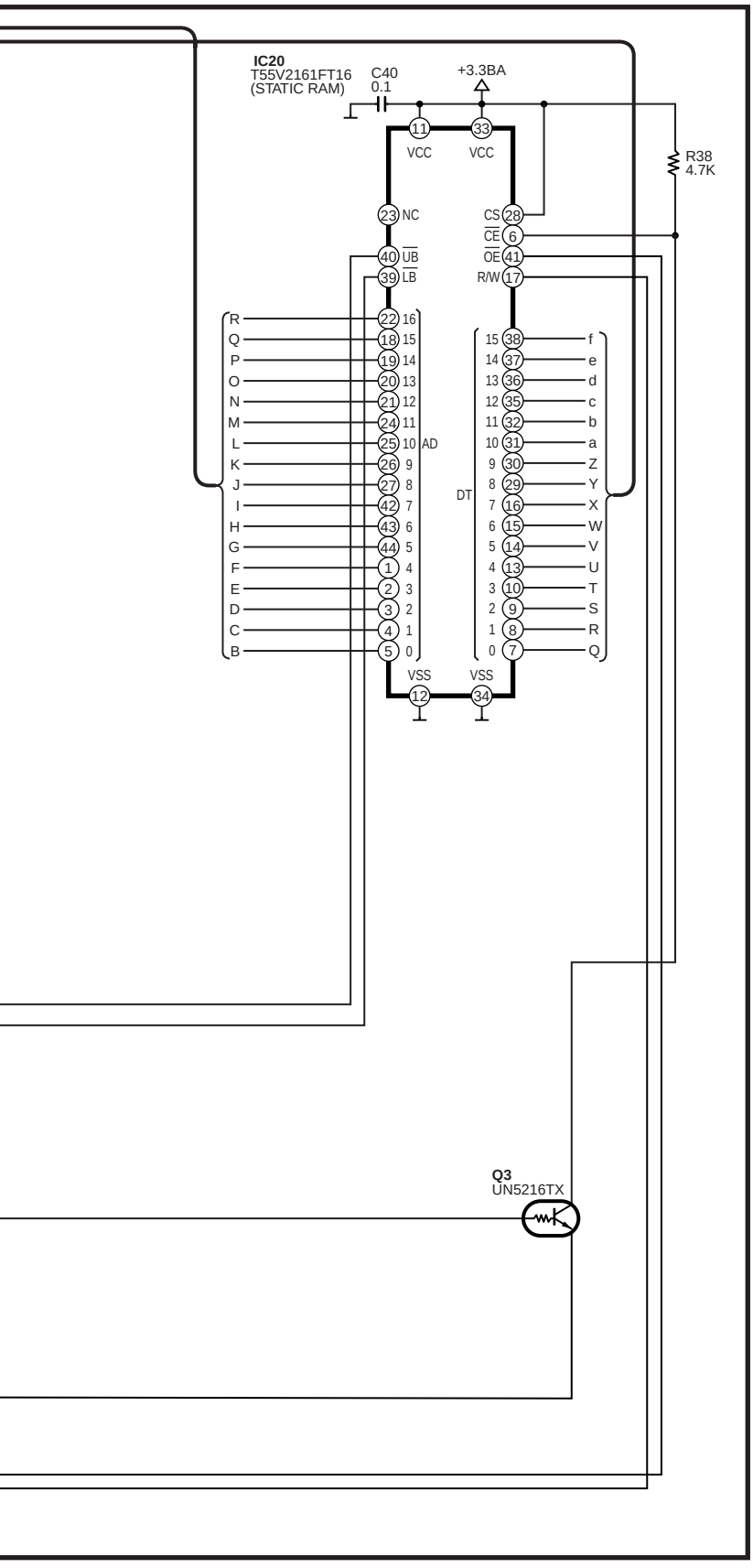
SCHEMATIC DIAGRAM-4



SCHEMATIC DIAGRAM-5

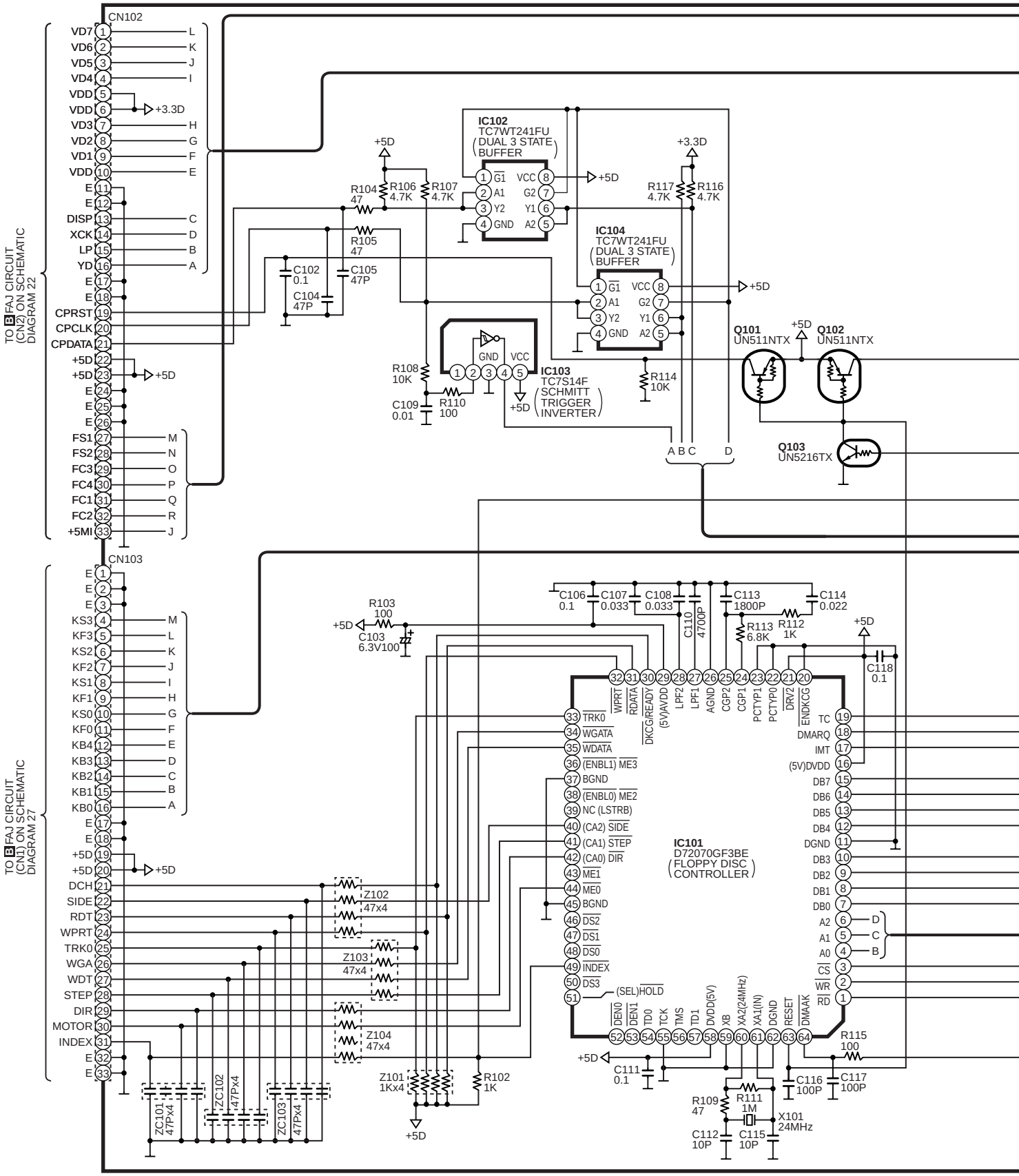


SCHEMATIC DIAGRAM-6

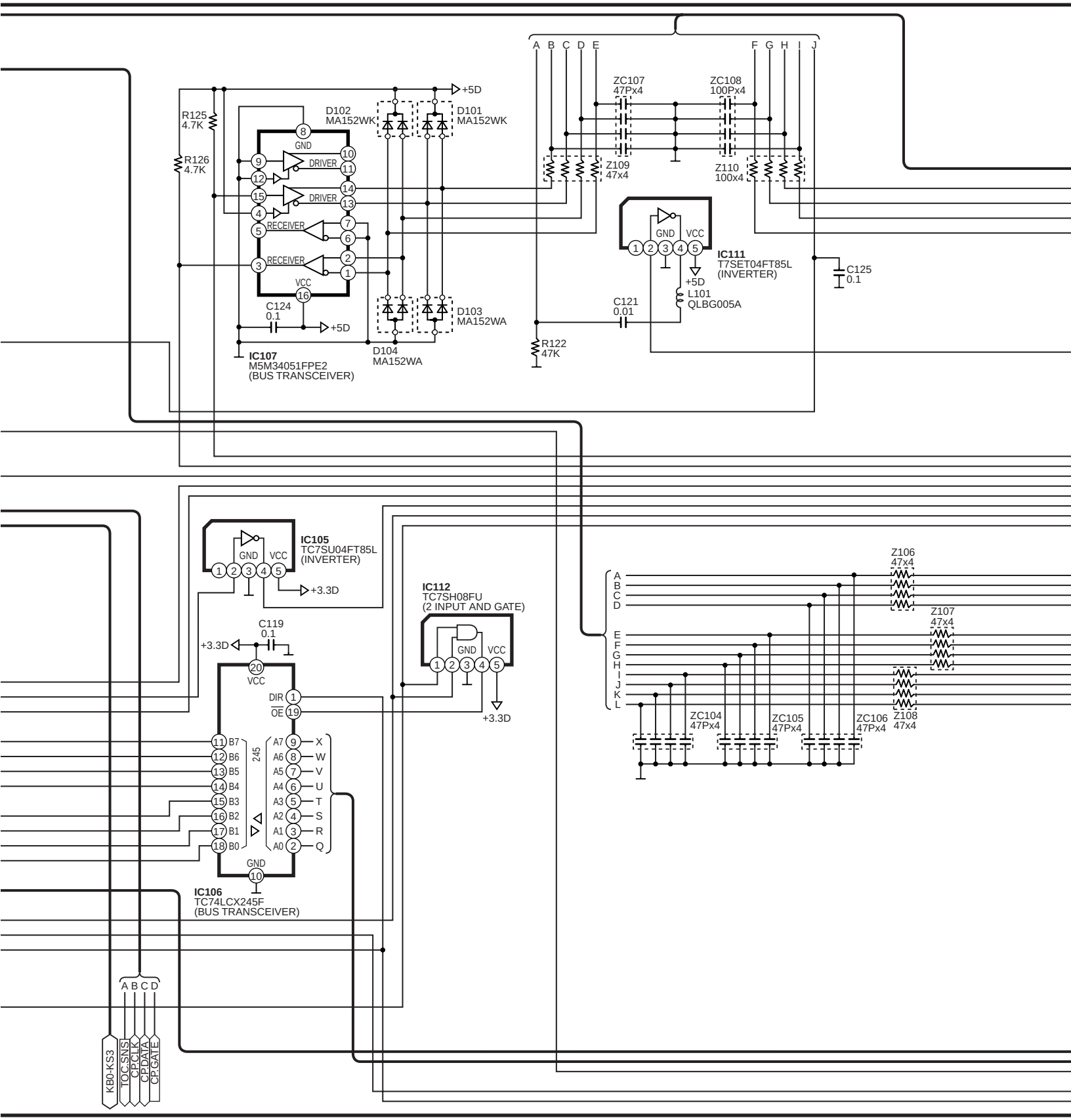


SCHEMATIC DIAGRAM-7

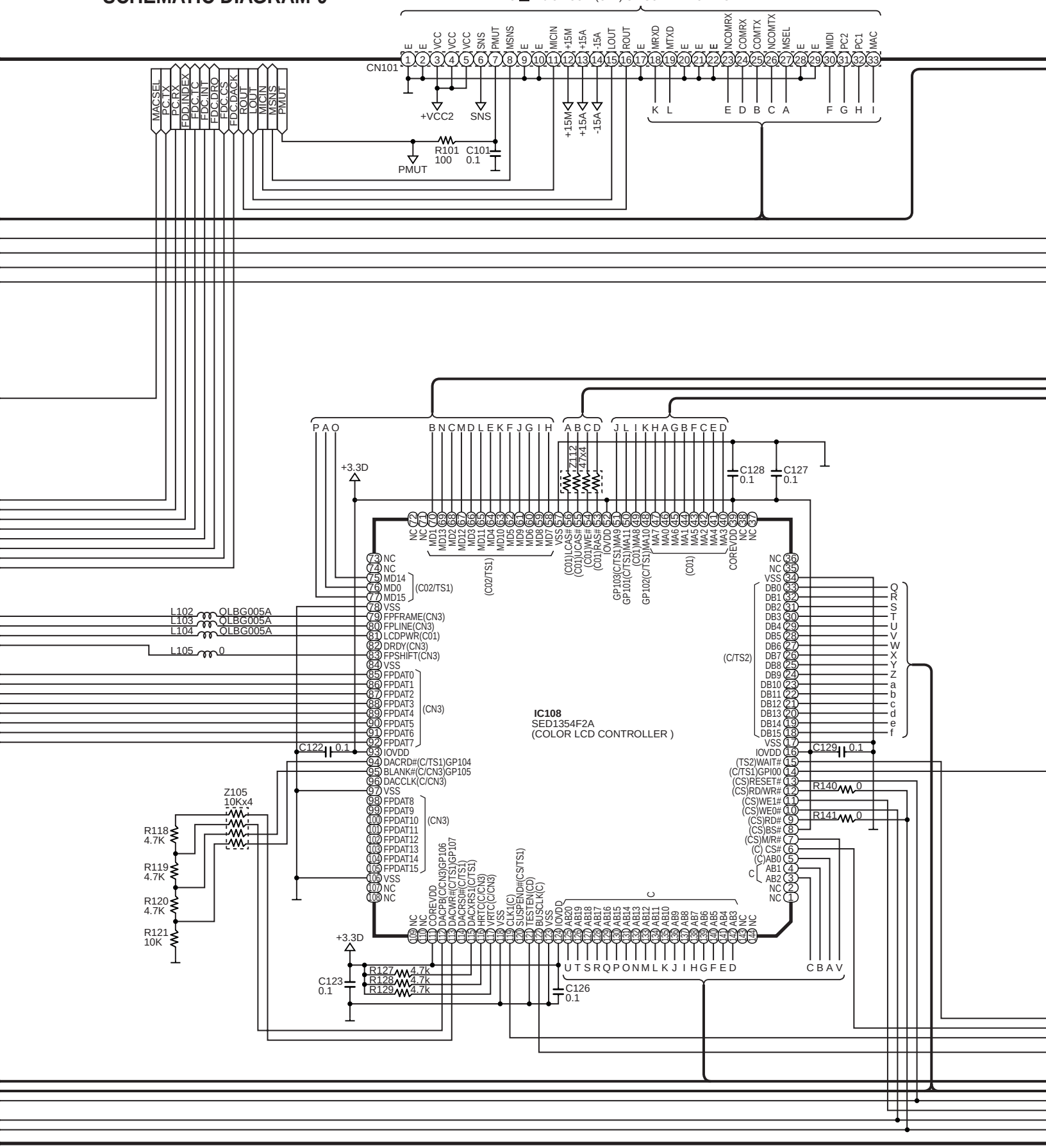
A MAIN CTRL CIRCUIT



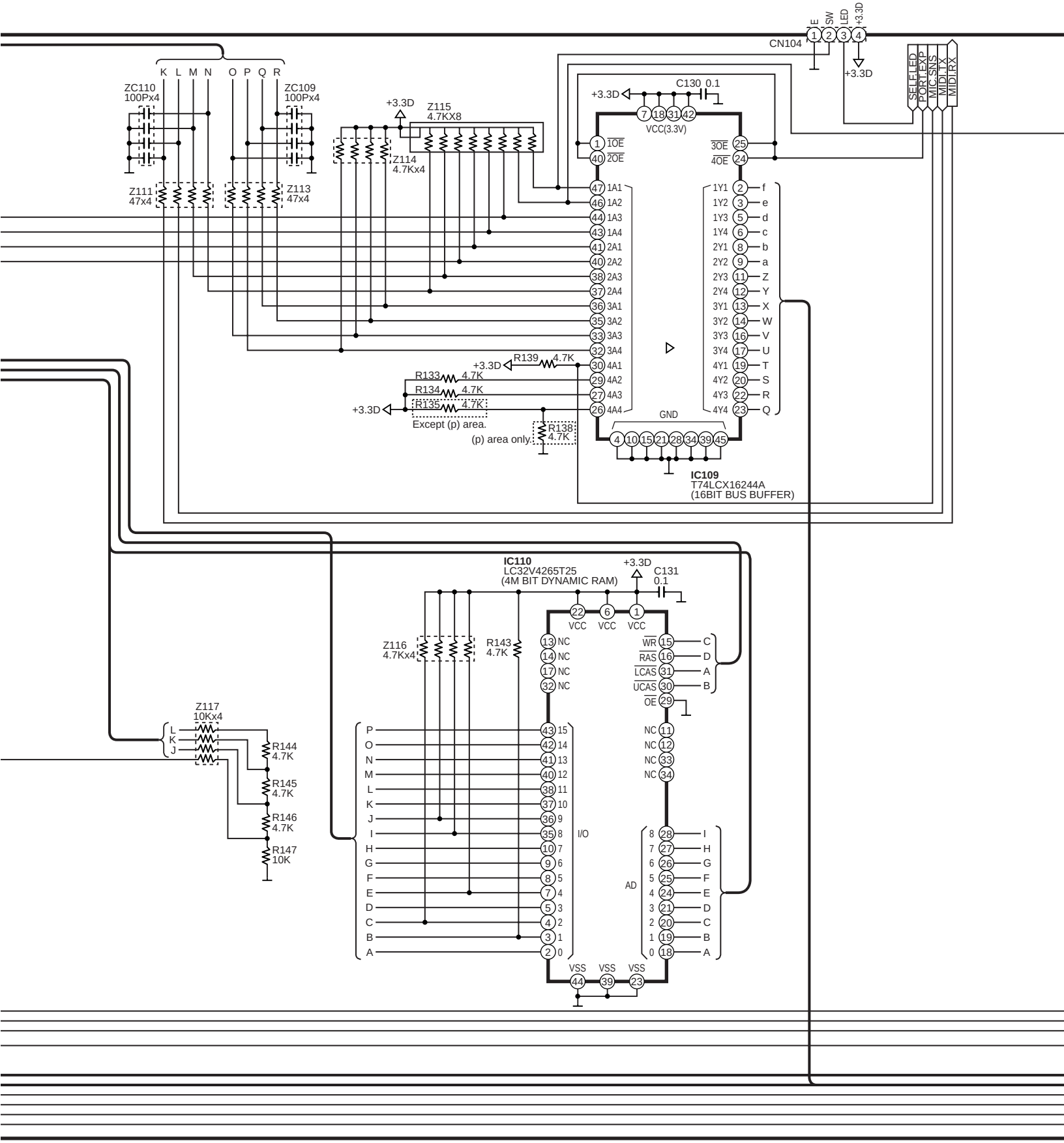
SCHEMATIC DIAGRAM-8



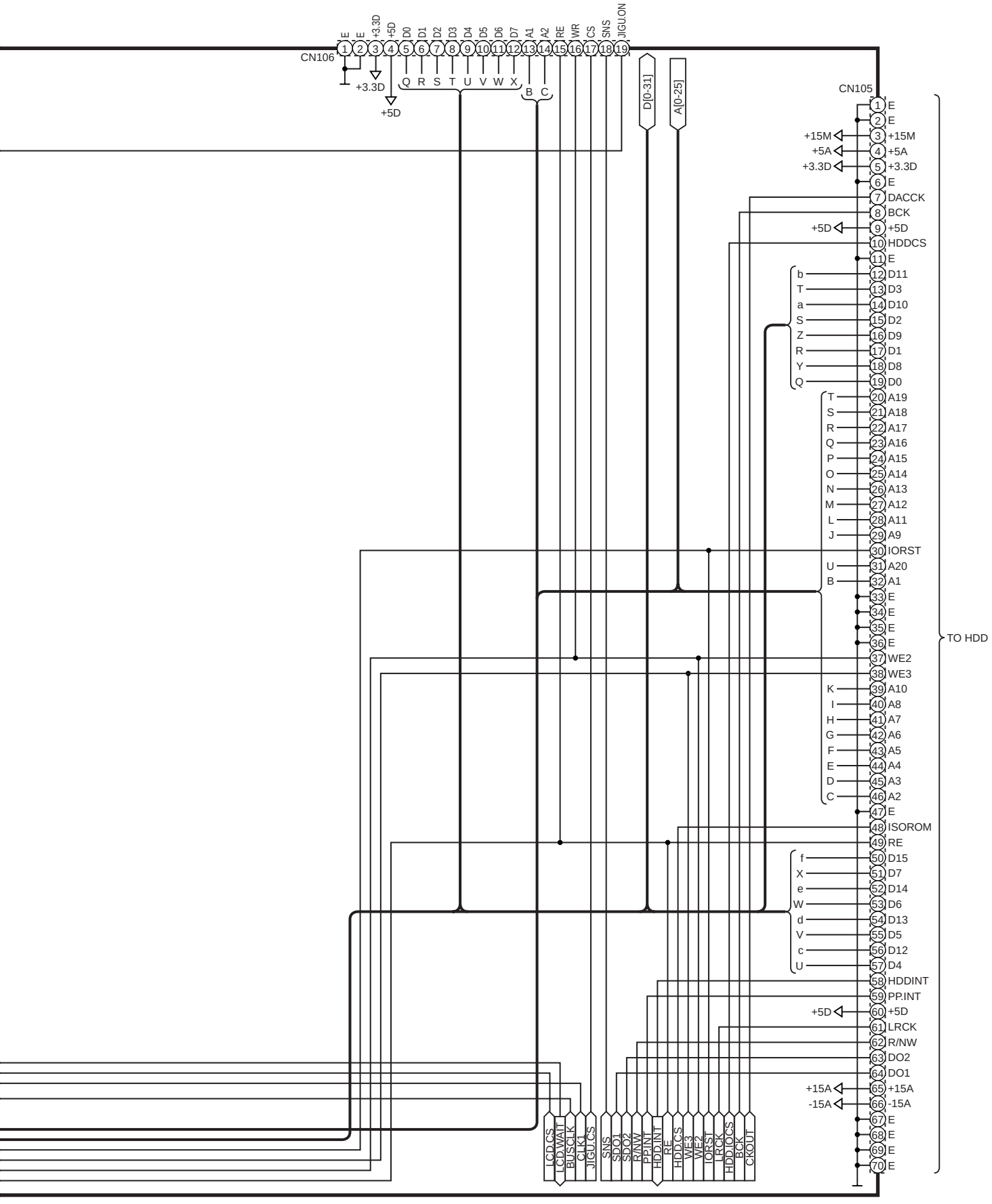
SCHEMATIC DIAGRAM-9


TO B FAJ CIRCUIT (CN1) ON SCHEMATIC DIAGRAM 22
CN101
E E VCC VCC VCC SNS PMUT MSNS E E MICIN +15M +15A -15A LOUT ROUT E MRXD MTXD E E E NCOMRX COMRX COMTX NCOMTX MSEL E E MIDI PC2 PC1 MAC
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33
K L E D B C A F G H I
+VCC2
SNS
+15M
+15A
-15A
PMUT
R101 100
C101 0.1
MACSEL PC.TX PC.RX FDD.INDEX FDC.TC FDC.INT FDC.DRQ FDC.CS FDC.DACK ROUT LOUT MICIN MSNS PMUT
P A O B N C M D L E K F J G I H A B C D J L I K H A G B F C E D
+3.3D
Z112 47x4
C128 0.1
C127 0.1
IC108
SED1354F2A
(COLOR LCD CONTROLLER)
L102 OLBG005A
L103 OLBG005A
L104 OLBG005A
L105 0
C122 0.1
C129 0.1
Z105 10Kx4
R118 4.7K
R119 4.7K
R120 4.7K
R121 10K
R127 4.7K
R128 4.7K
R129 4.7K
C123 0.1
C126 0.1
R140 0
R141 0
U T S R Q P O N M L K J I H G F E D
C B A V
Q R S T U V W X Y Z a b c d e f

SCHEMATIC DIAGRAM-10

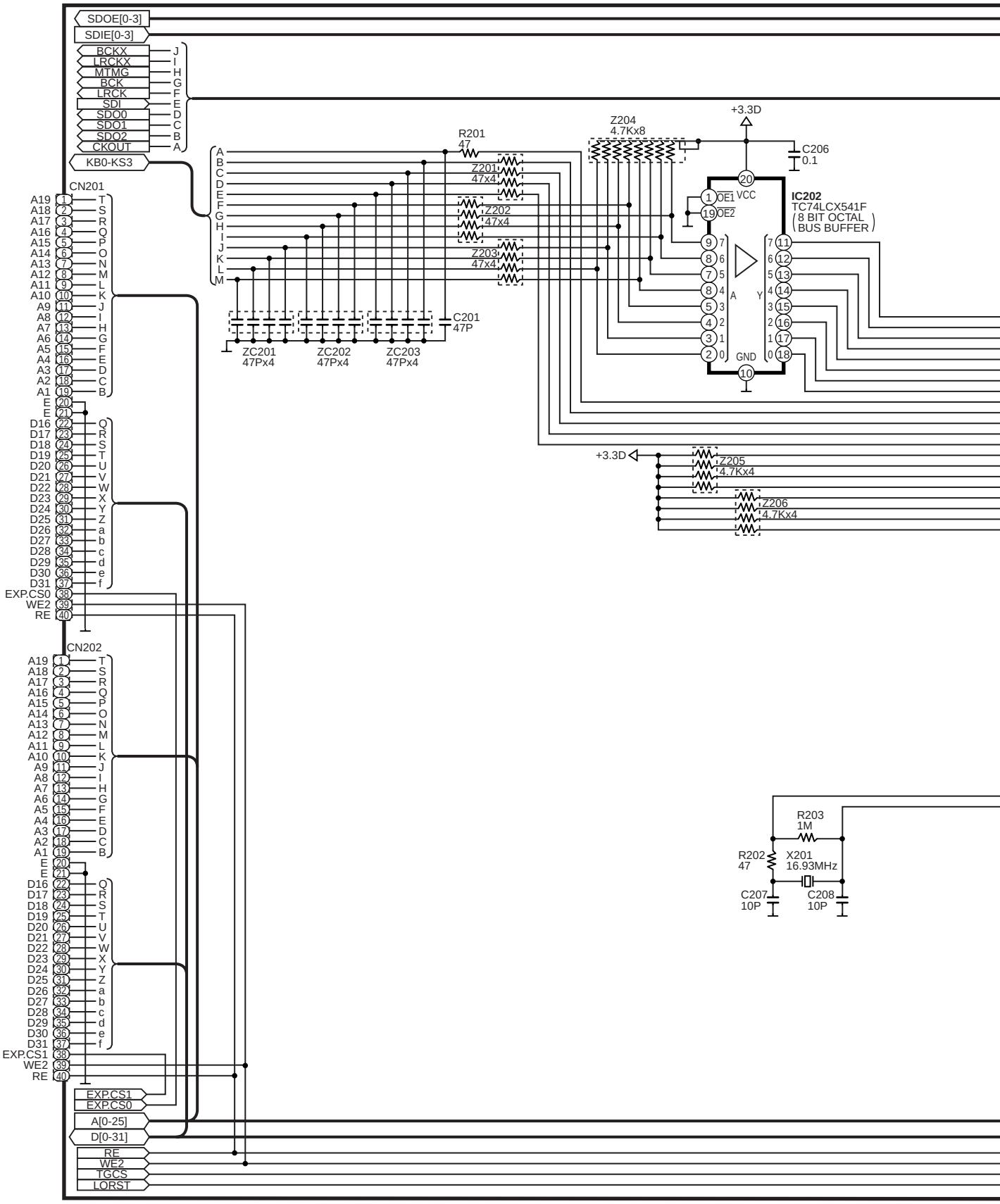


SCHEMATIC DIAGRAM-11

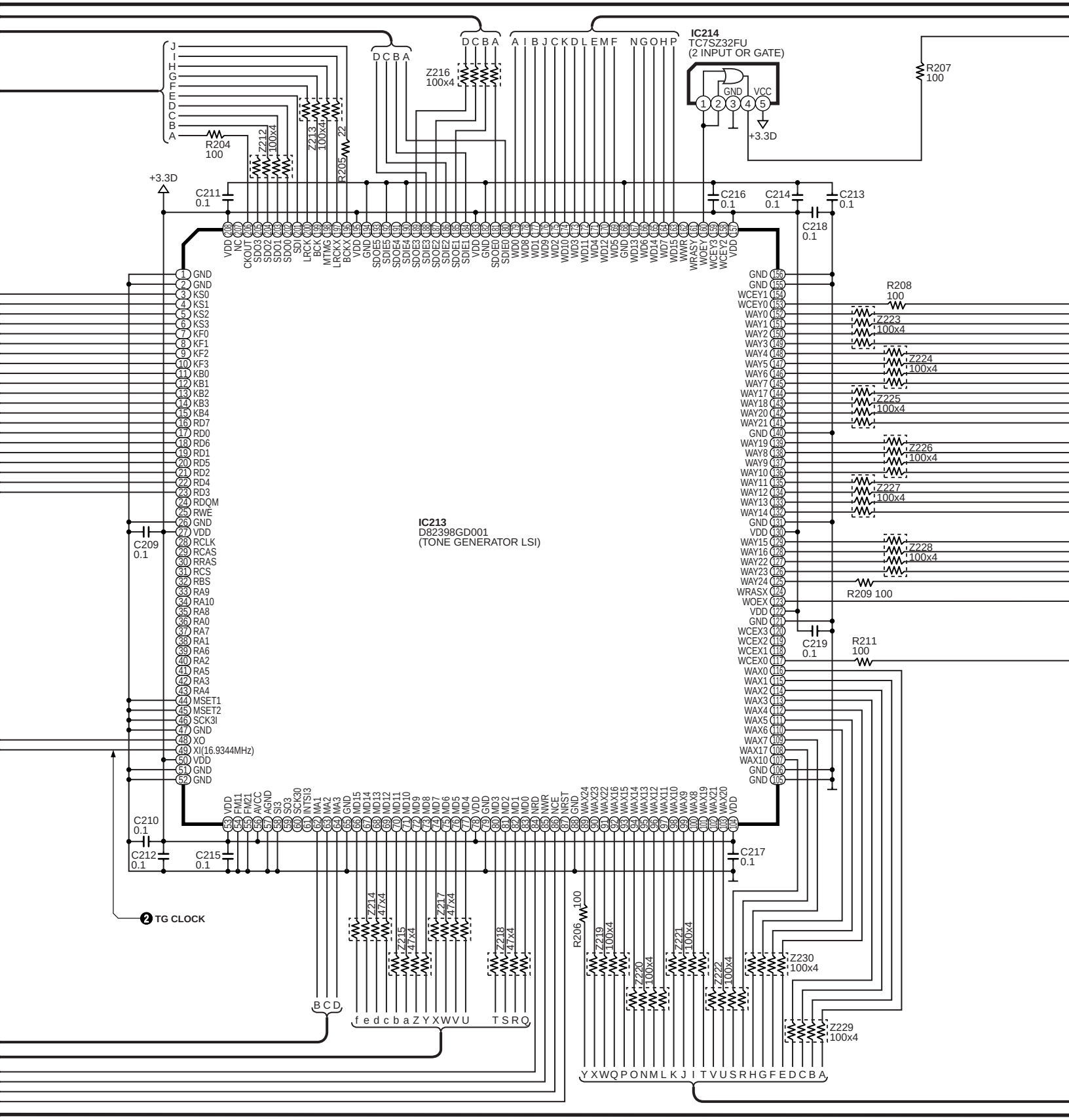


SCHEMATIC DIAGRAM-12

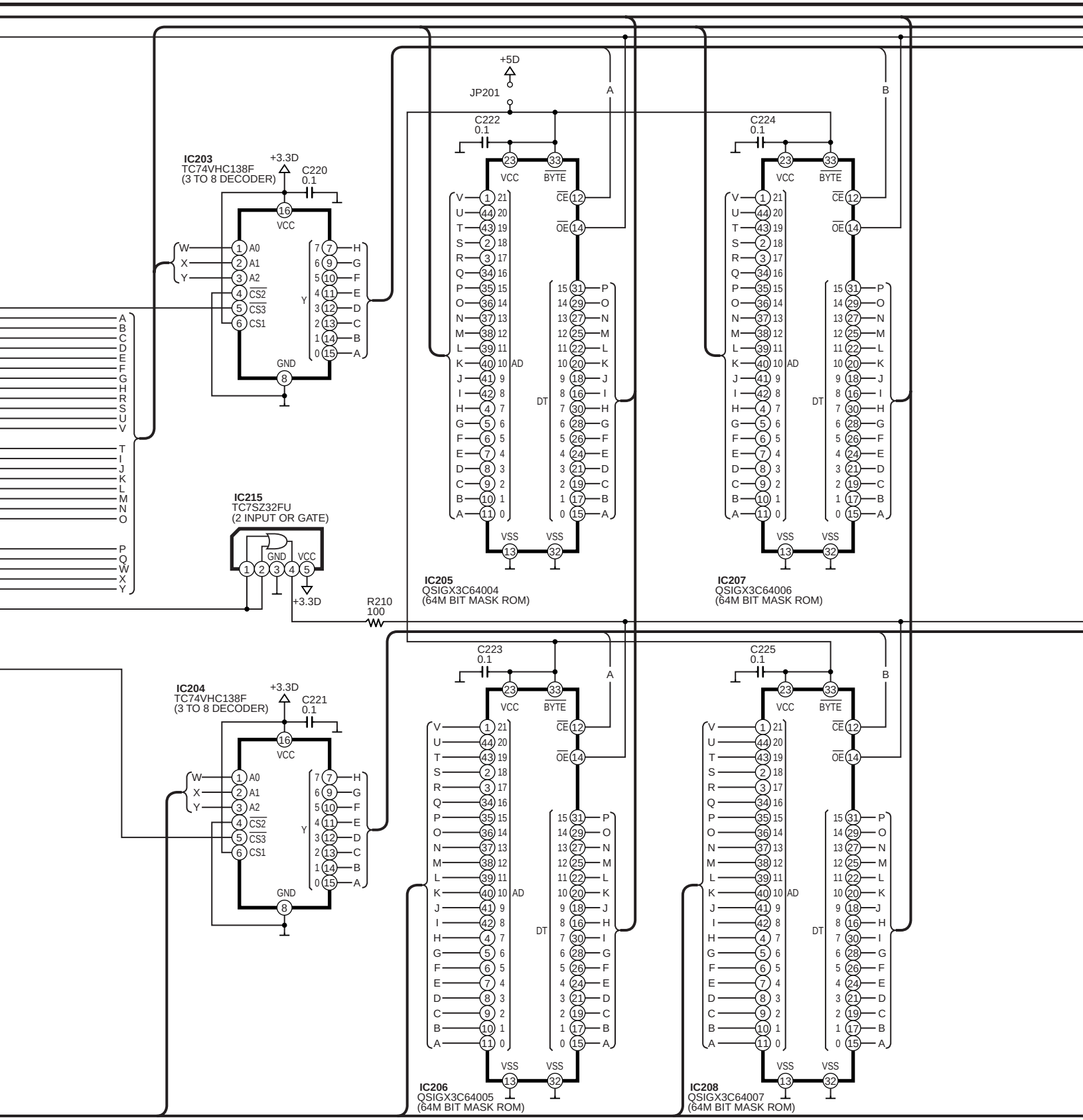
A MAIN TG CIRCUIT



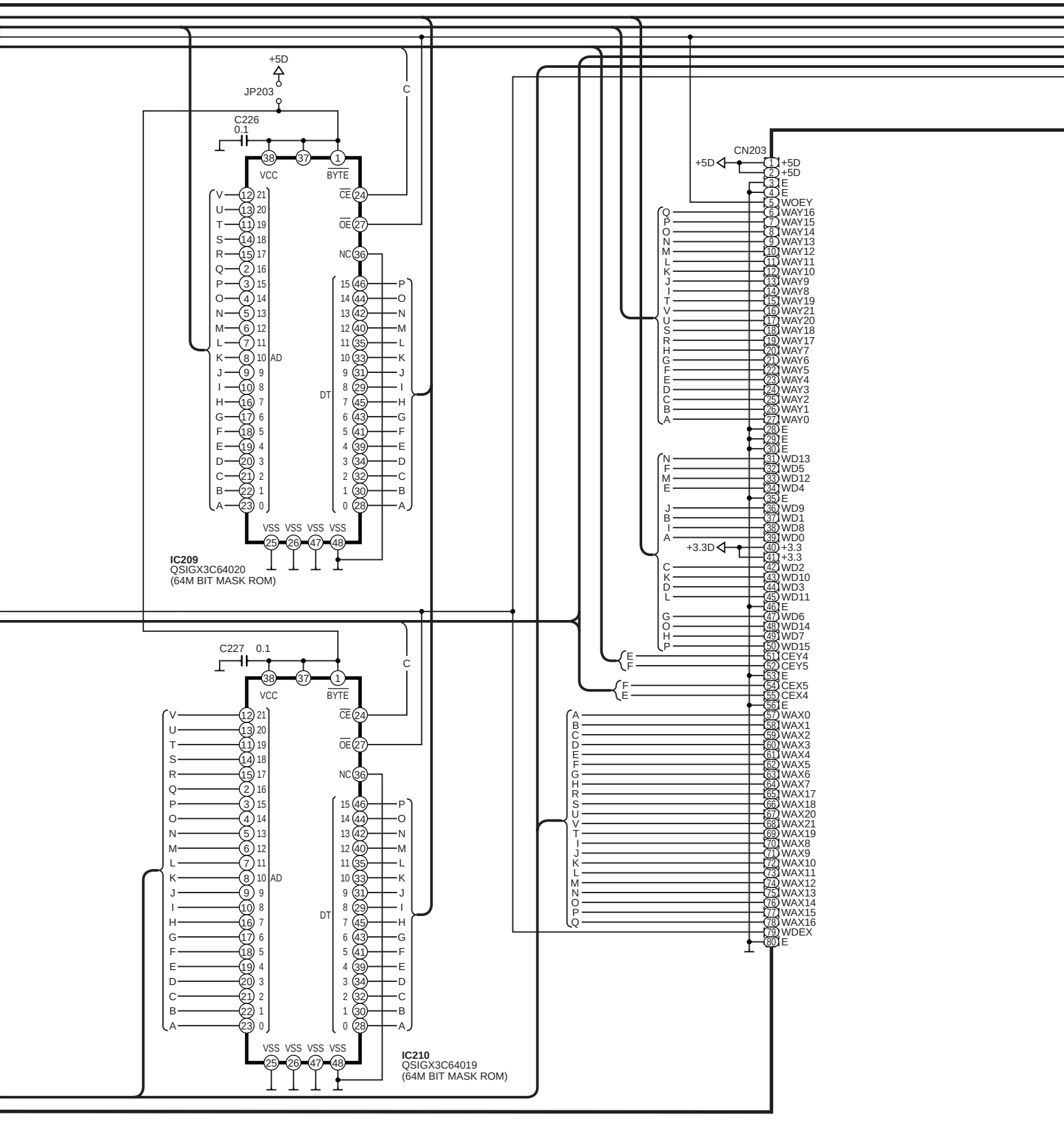
SCHEMATIC DIAGRAM-13



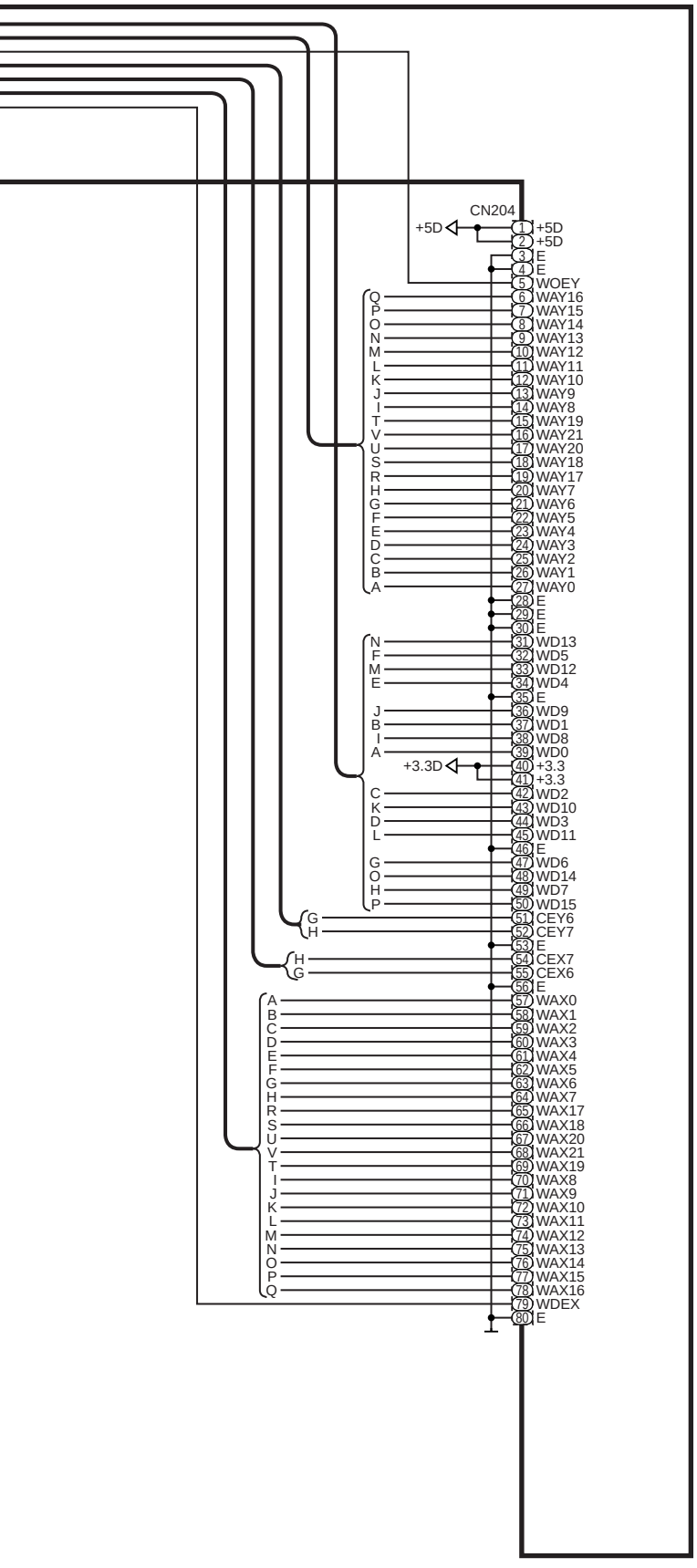
SCHEMATIC DIAGRAM-14



SCHEMATIC DIAGRAM-15

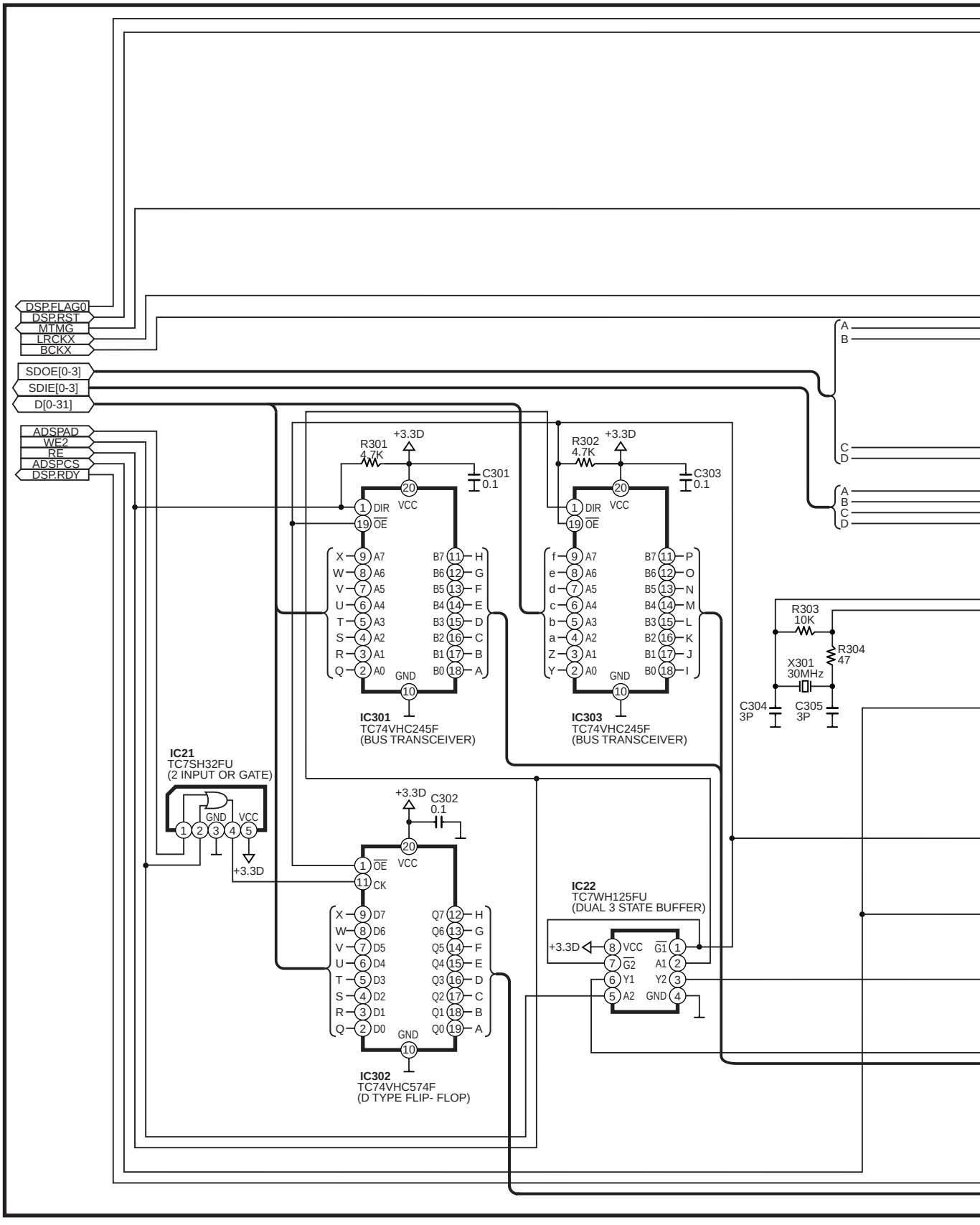


SCHEMATIC DIAGRAM-16

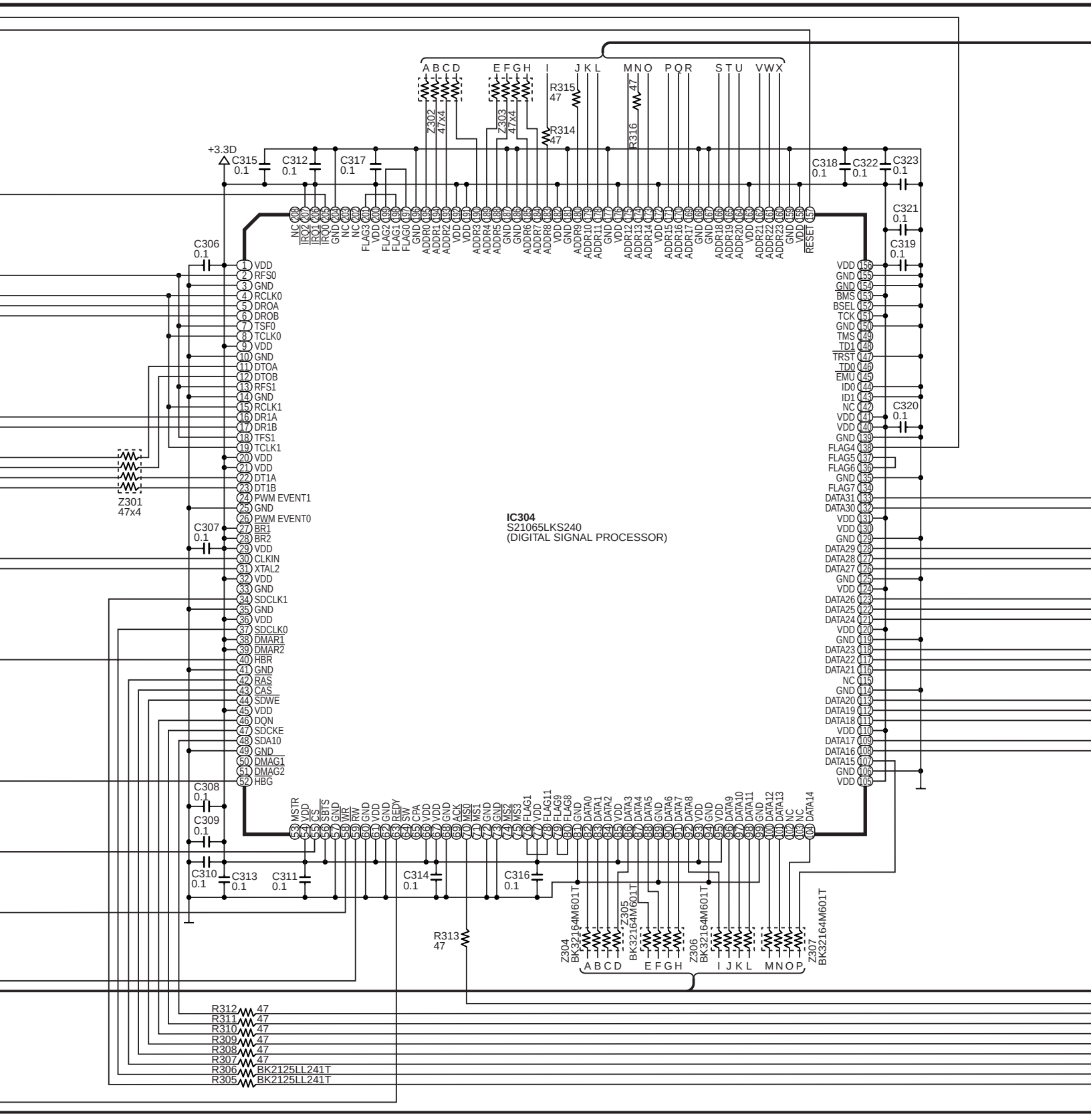


SCHEMATIC DIAGRAM-17

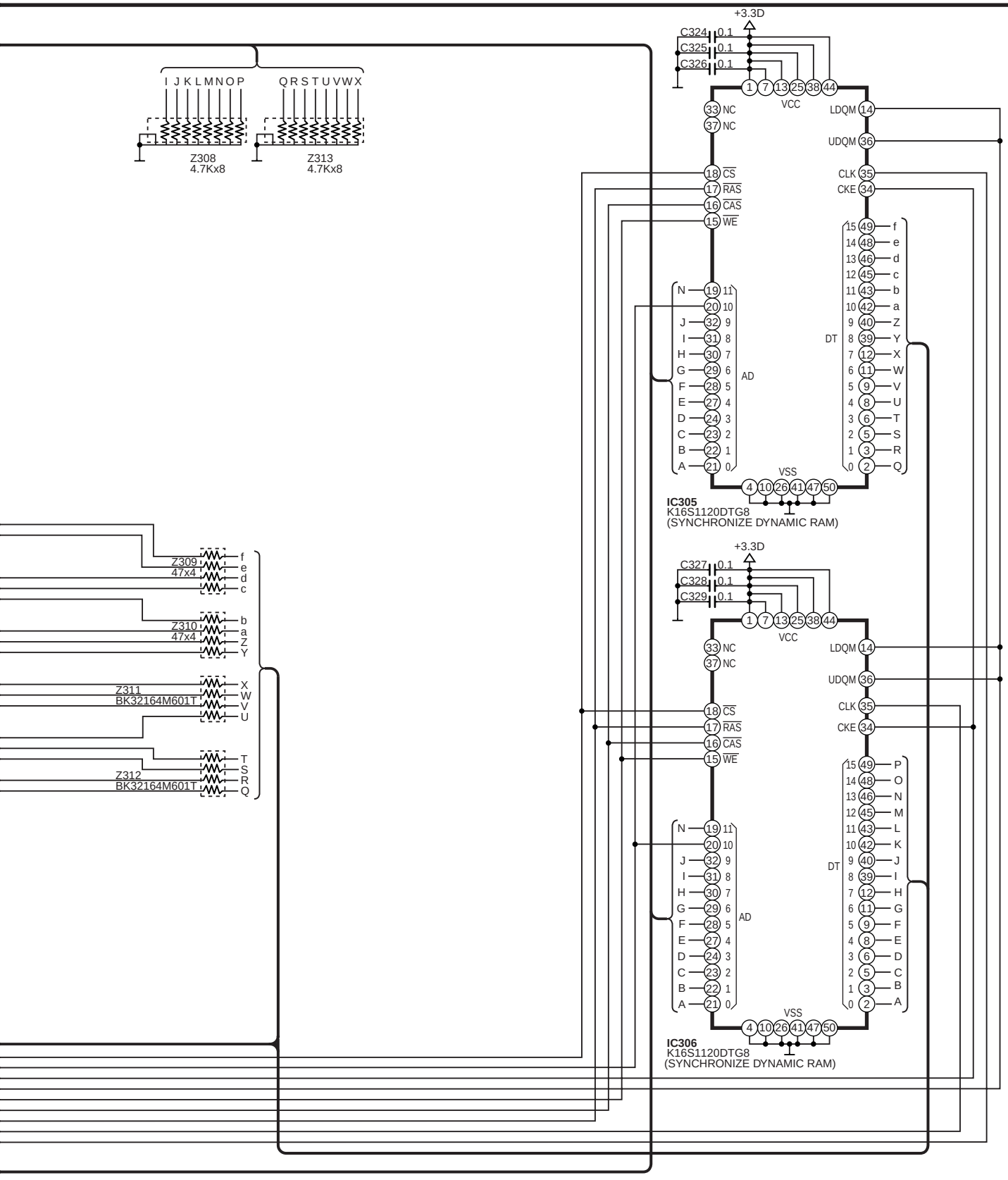
A MAIN DSP CIRCUIT



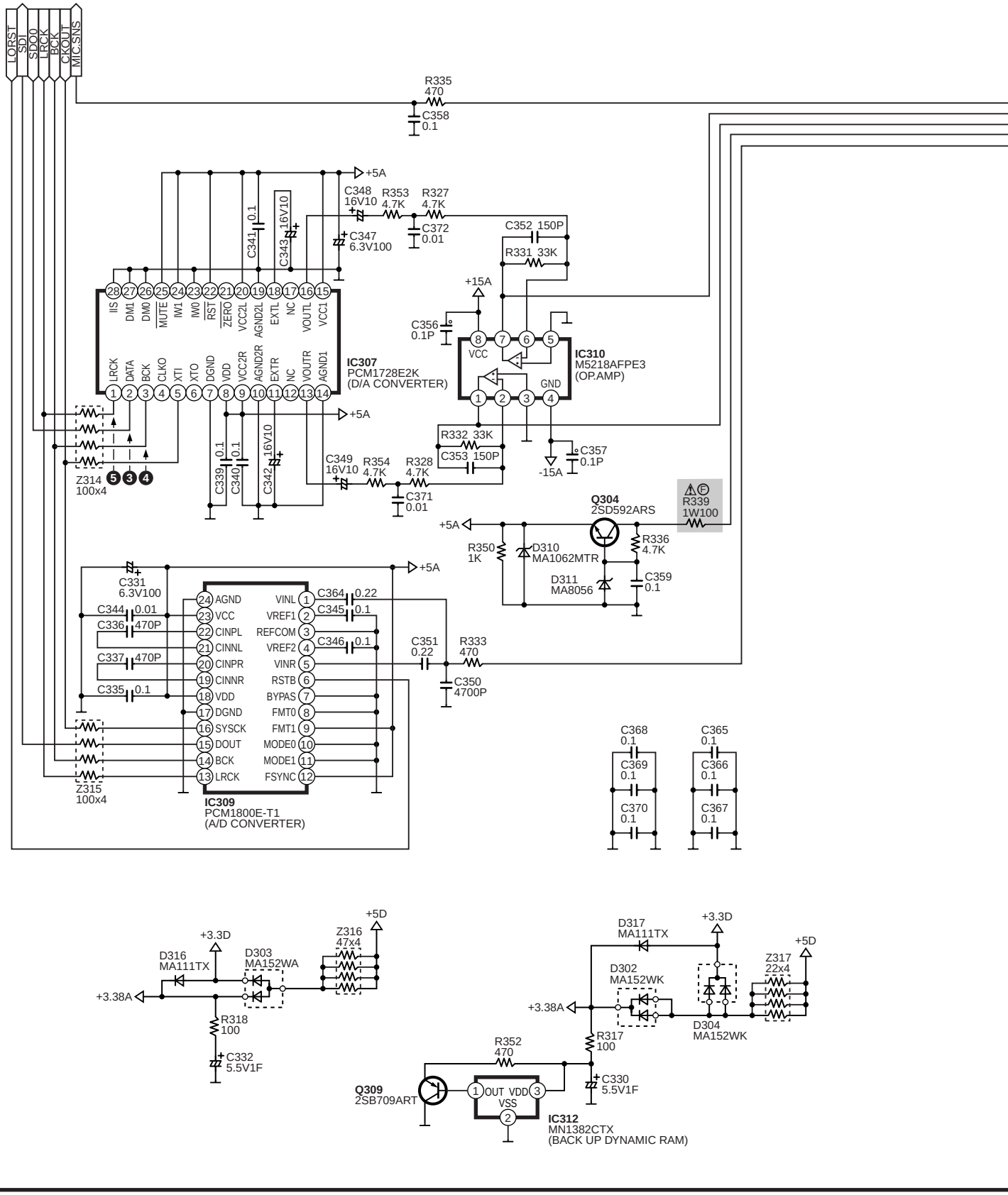
SCHEMATIC DIAGRAM-18



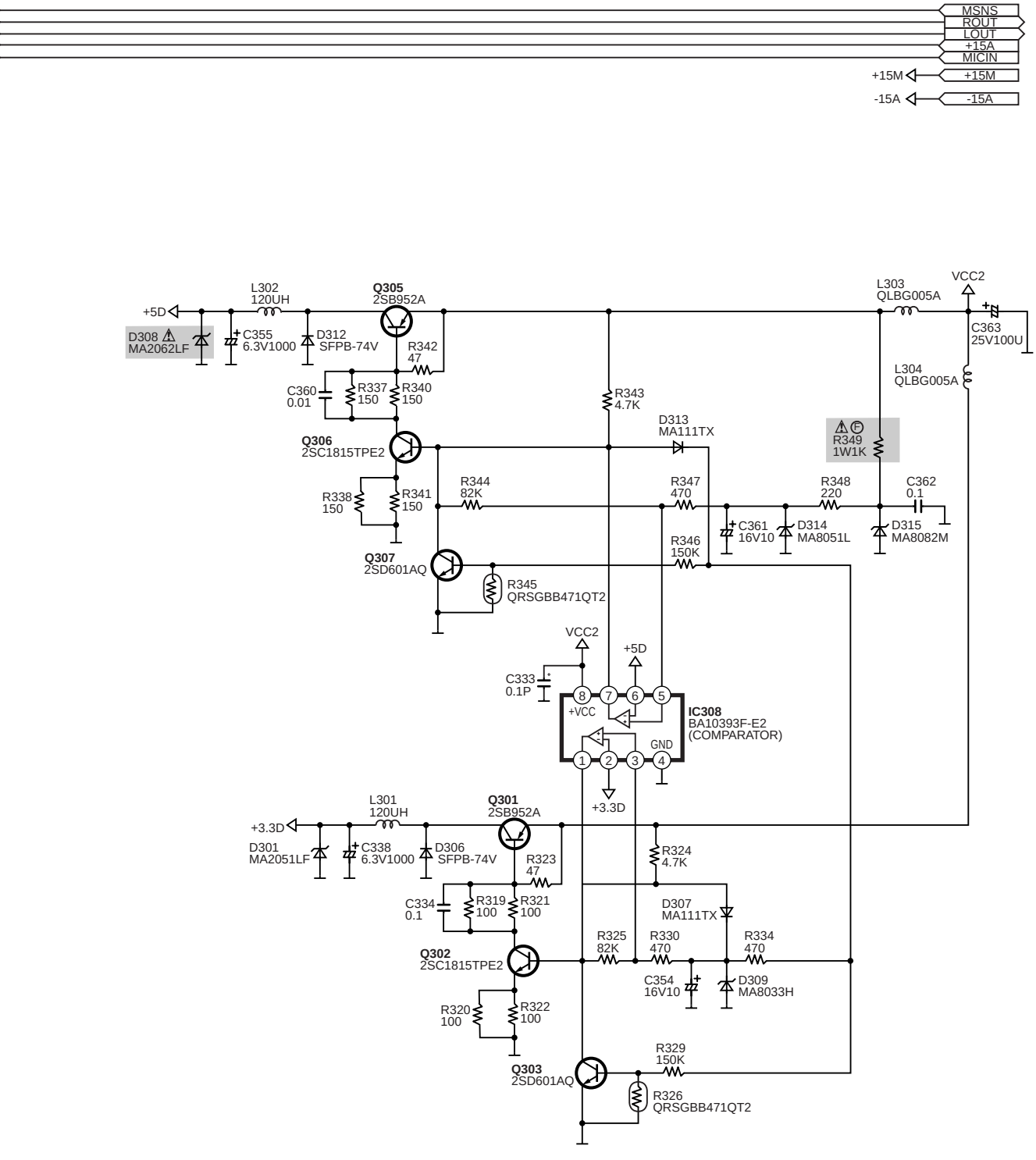
SCHEMATIC DIAGRAM-19



SCHEMATIC DIAGRAM-20

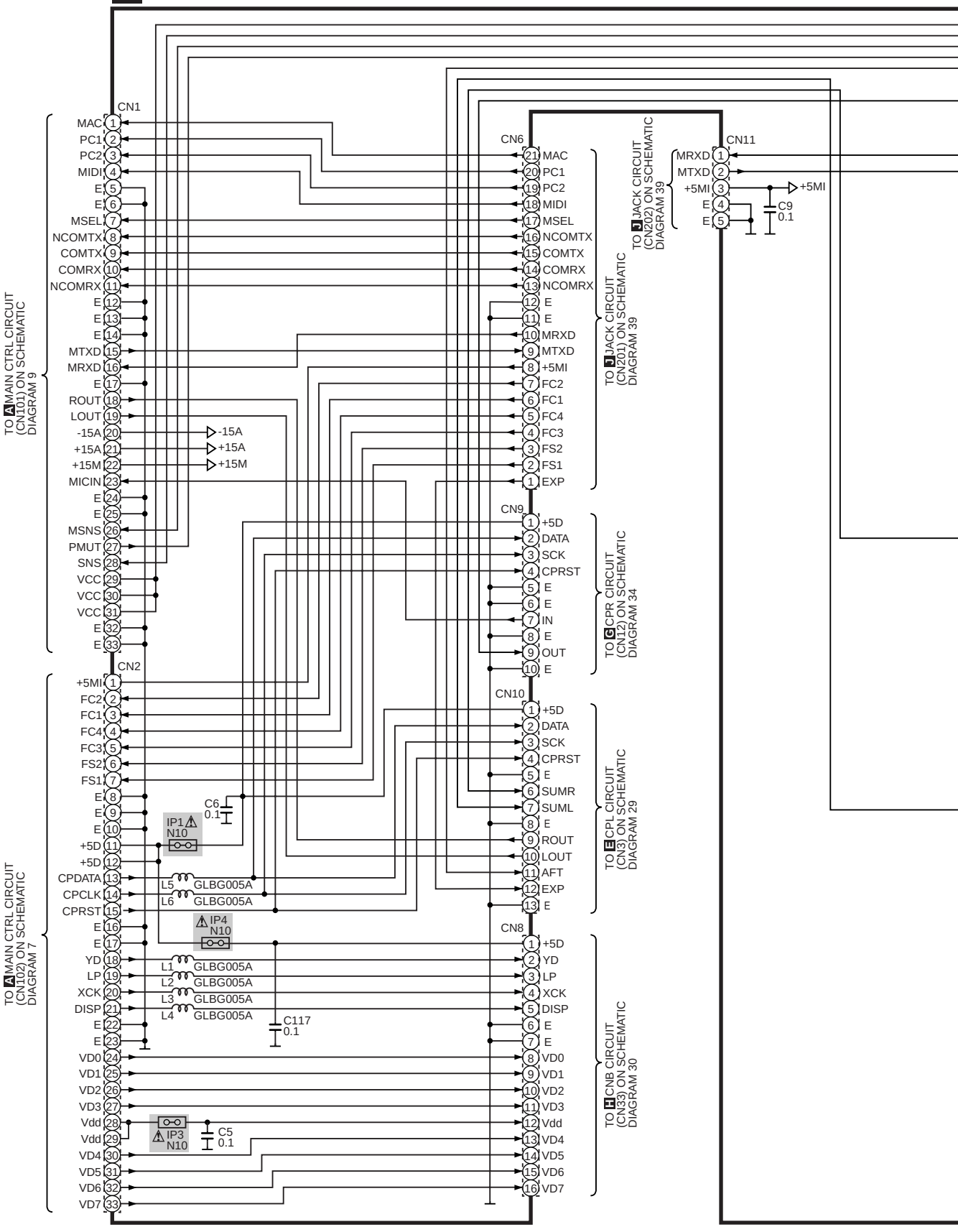


SCHEMATIC DIAGRAM-21

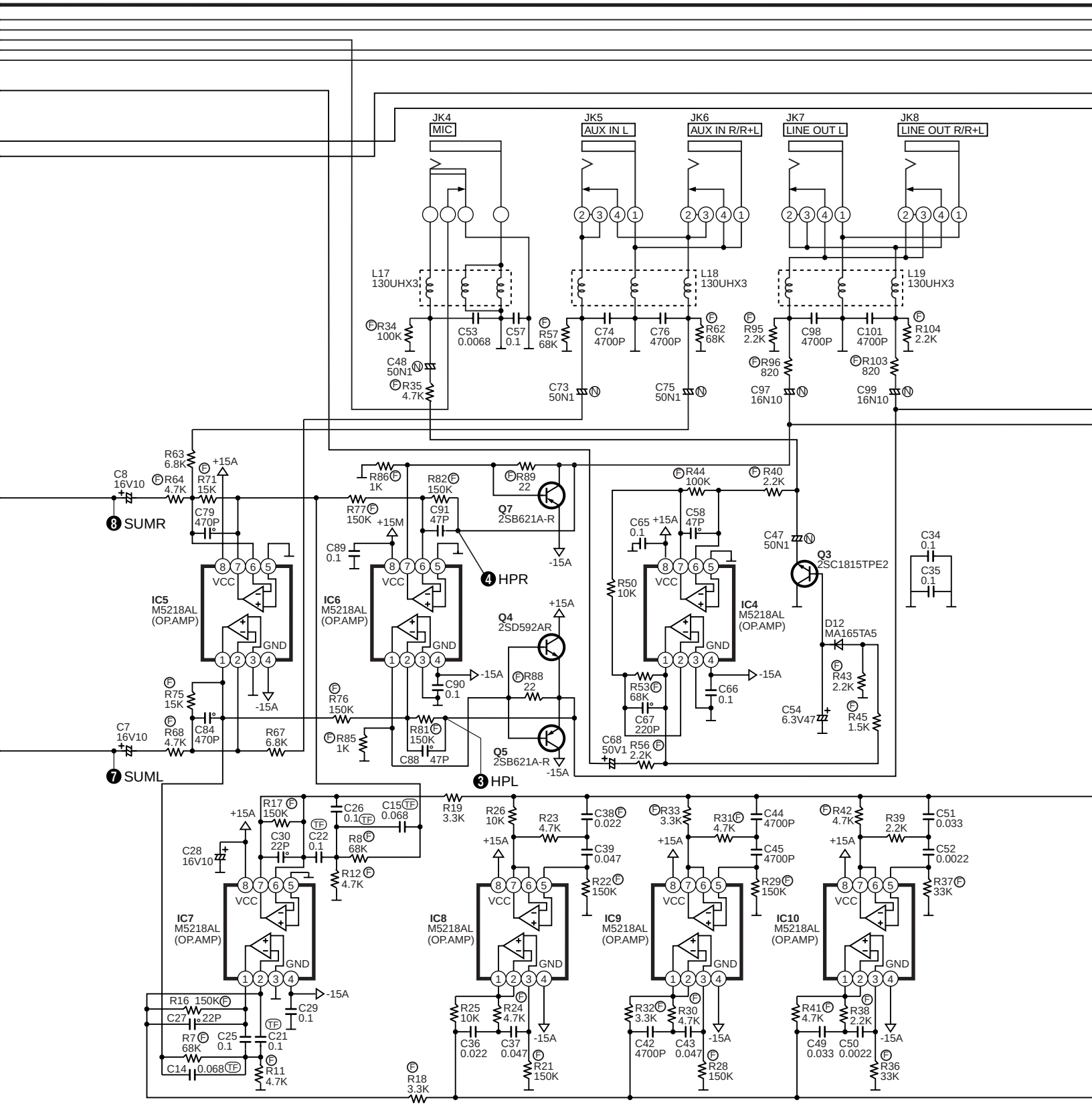


SCHEMATIC DIAGRAM-22

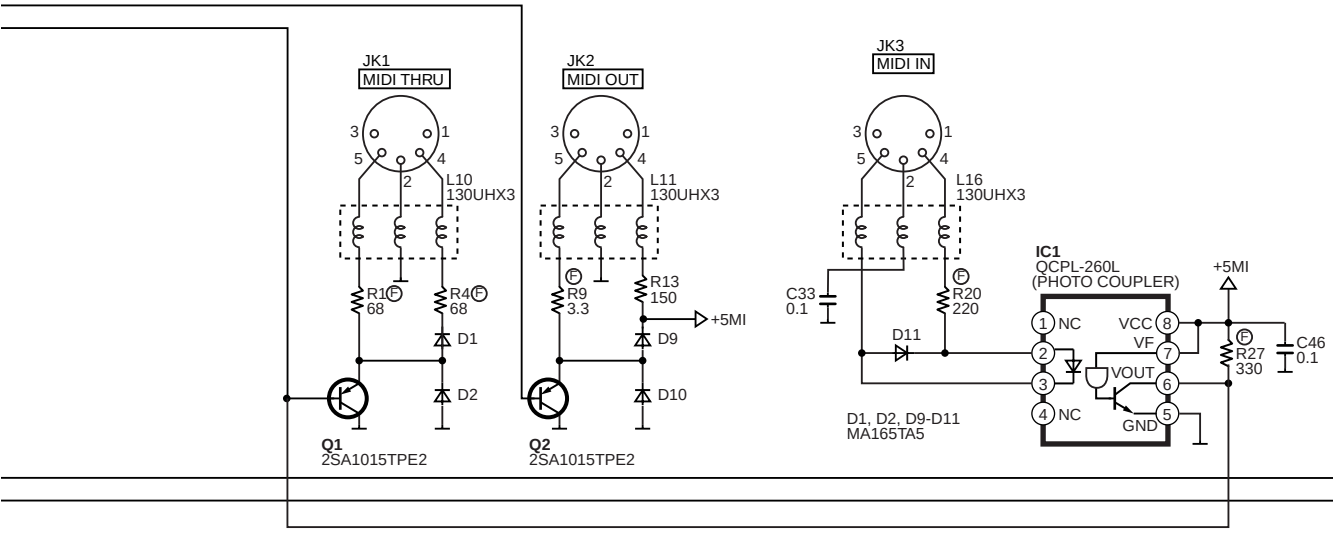
B FAJ CIRCUIT

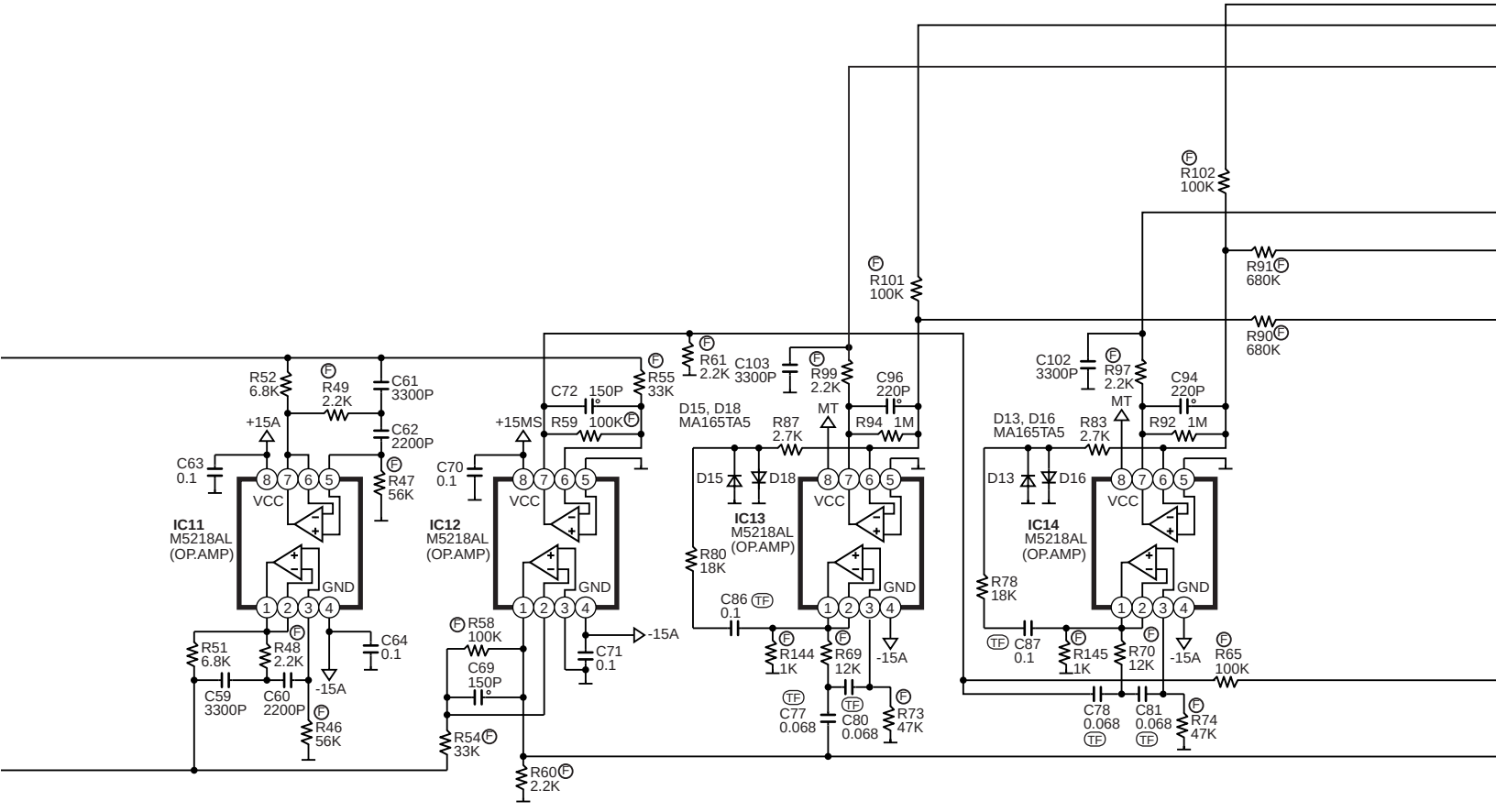


SCHEMATIC DIAGRAM-23

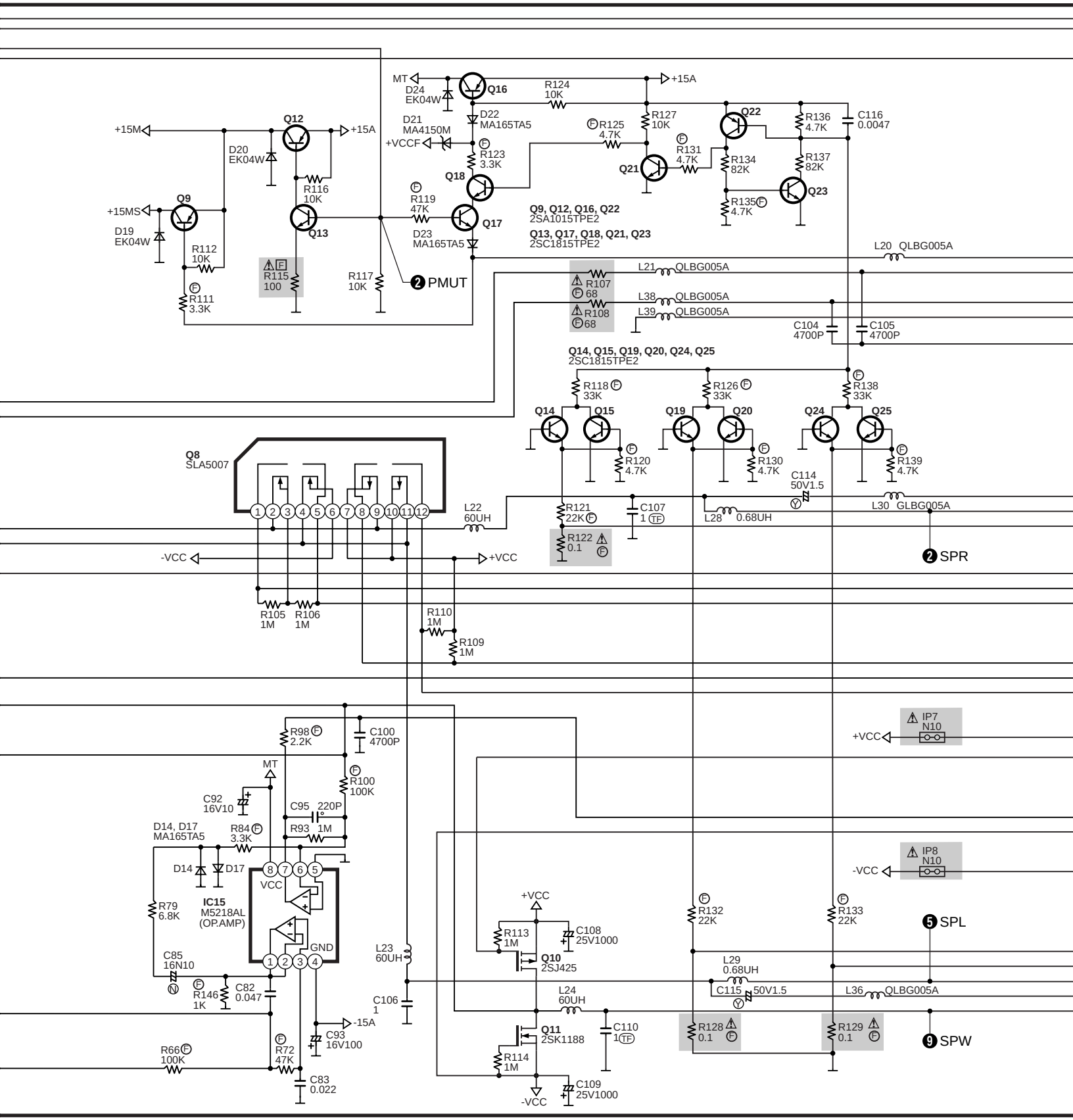


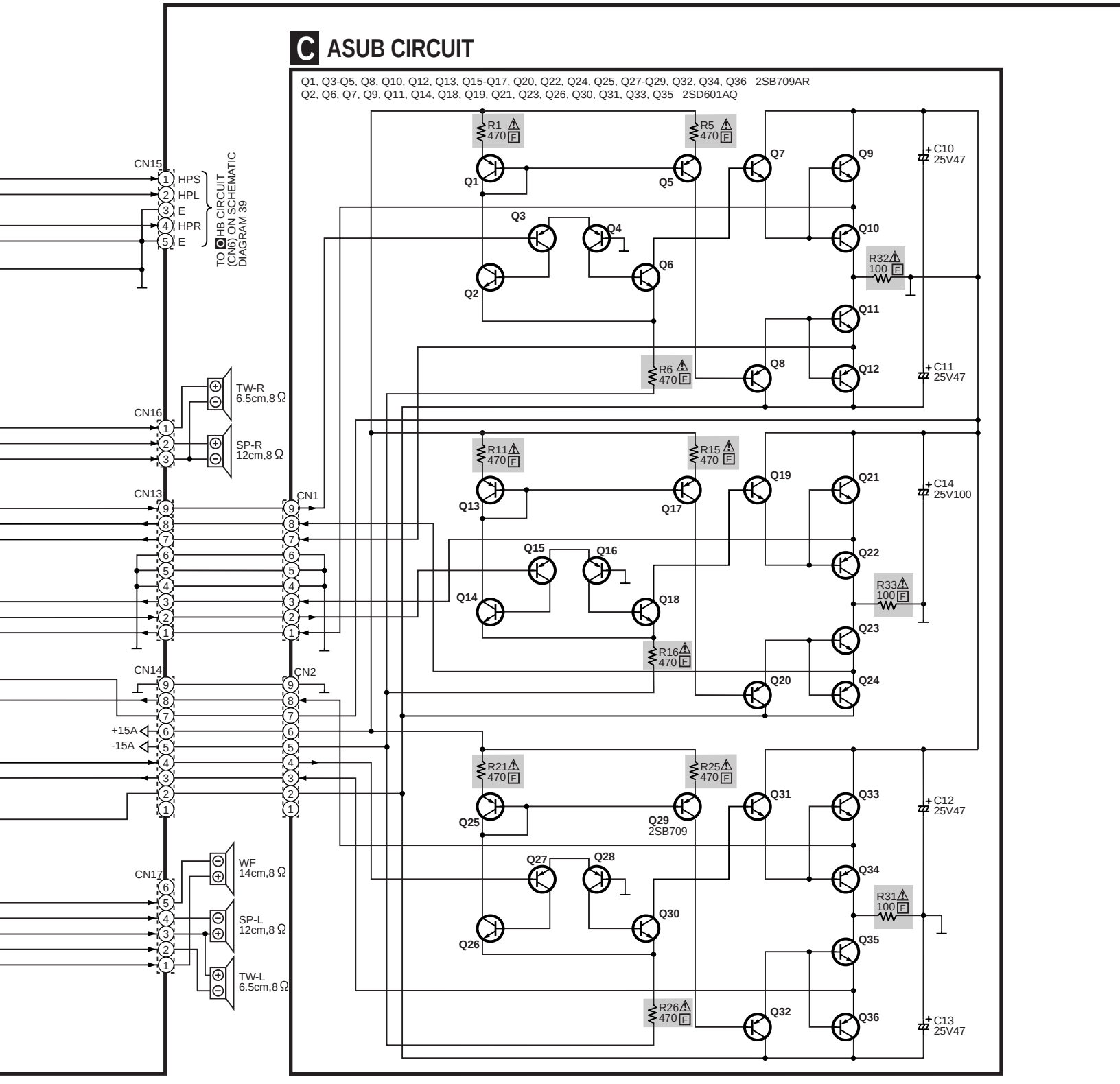
SCHEMATIC DIAGRAM-24



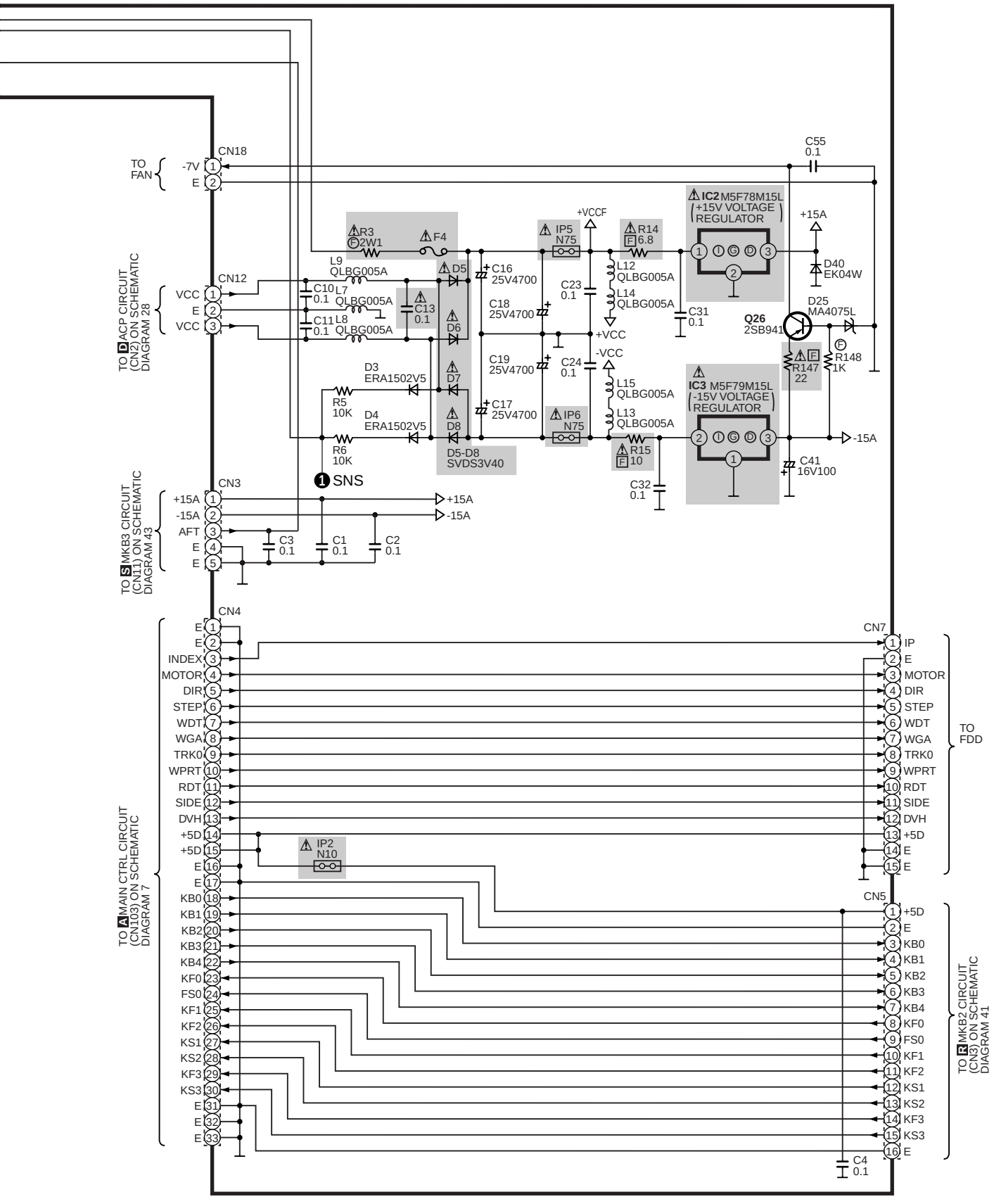


SCHEMATIC DIAGRAM-25

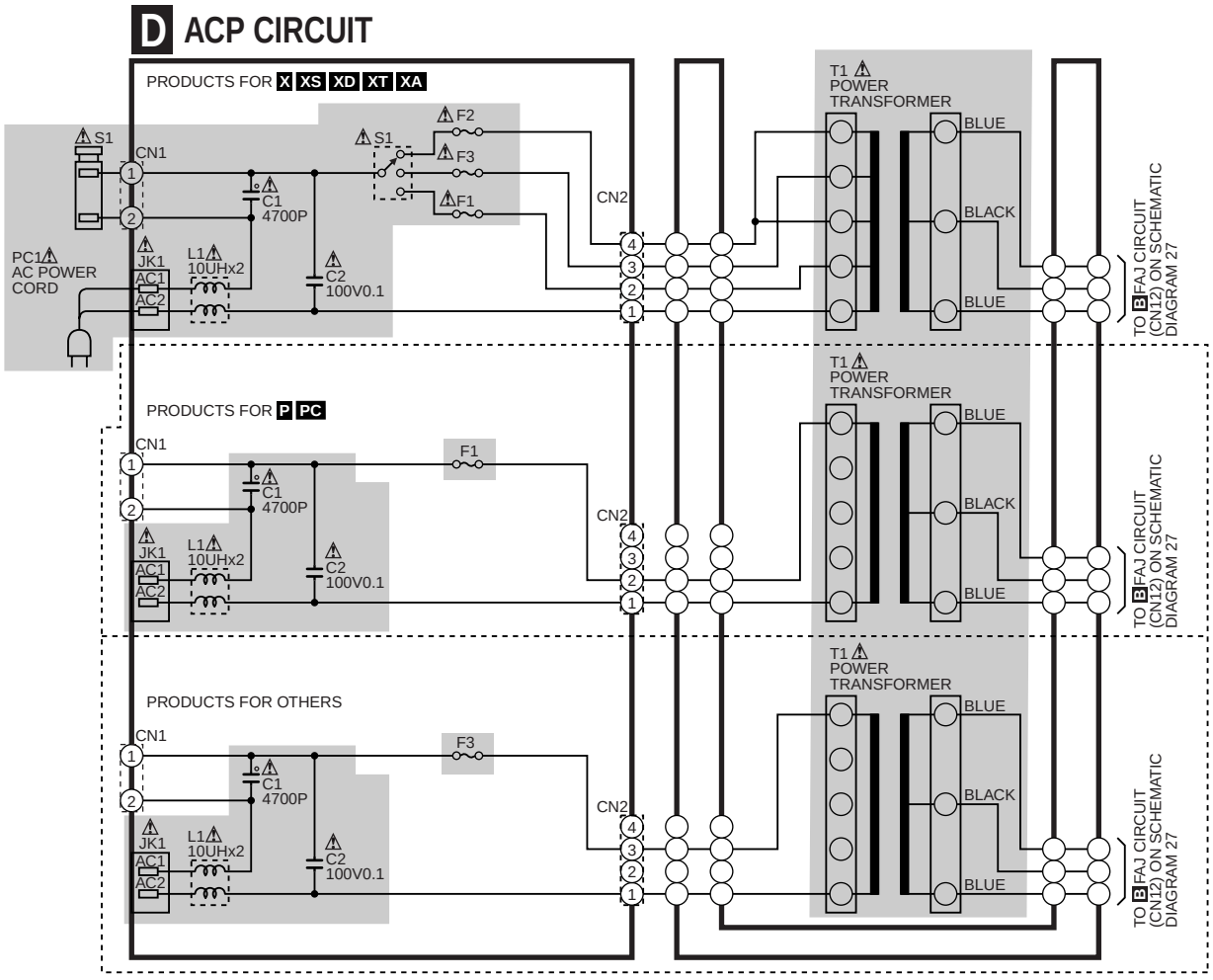



C ASUB CIRCUIT
Q1, Q3-Q5, Q8, Q10, Q12, Q13, Q15-Q17, Q20, Q22, Q24, Q25, Q27-Q29, Q32, Q34, Q36 2SB709AR
Q2, Q6, Q7, Q9, Q11, Q14, Q18, Q19, Q21, Q23, Q26, Q30, Q31, Q33, Q35 2SD601AQ
CN15
HPS
HPL
E
HPR
E
TO HB CIRCUIT (CN6) ON SCHEMATIC DIAGRAM 39
TW-R 6.5cm,8 Ω
SP-R 12cm,8 Ω
CN16
CN13
CN1
CN14
CN2
+15A
-15A
CN17
WF 14cm,8 Ω
SP-L 12cm,8 Ω
TW-L 6.5cm,8 Ω
R1 470 F
R5 470 F
Q1
Q5
Q7
Q9
C10 25V47
Q3
Q4
Q10
R32 100 F
Q2
Q6
Q11
R6 470 F
Q8
Q12
C11 25V47
R11 470 F
R15 470 F
Q13
Q17
Q19
Q21
C14 25V100
Q15
Q16
Q22
R33 100 F
Q14
Q18
Q23
R16 470 F
Q20
Q24
R21 470 F
R25 470 F
Q25
Q29 2SB709
Q31
Q33
C12 25V47
Q27
Q28
Q34
R31 100 F
Q26
Q30
Q35
R26 470 F
Q32
Q36
C13 25V47

SCHEMATIC DIAGRAM-27

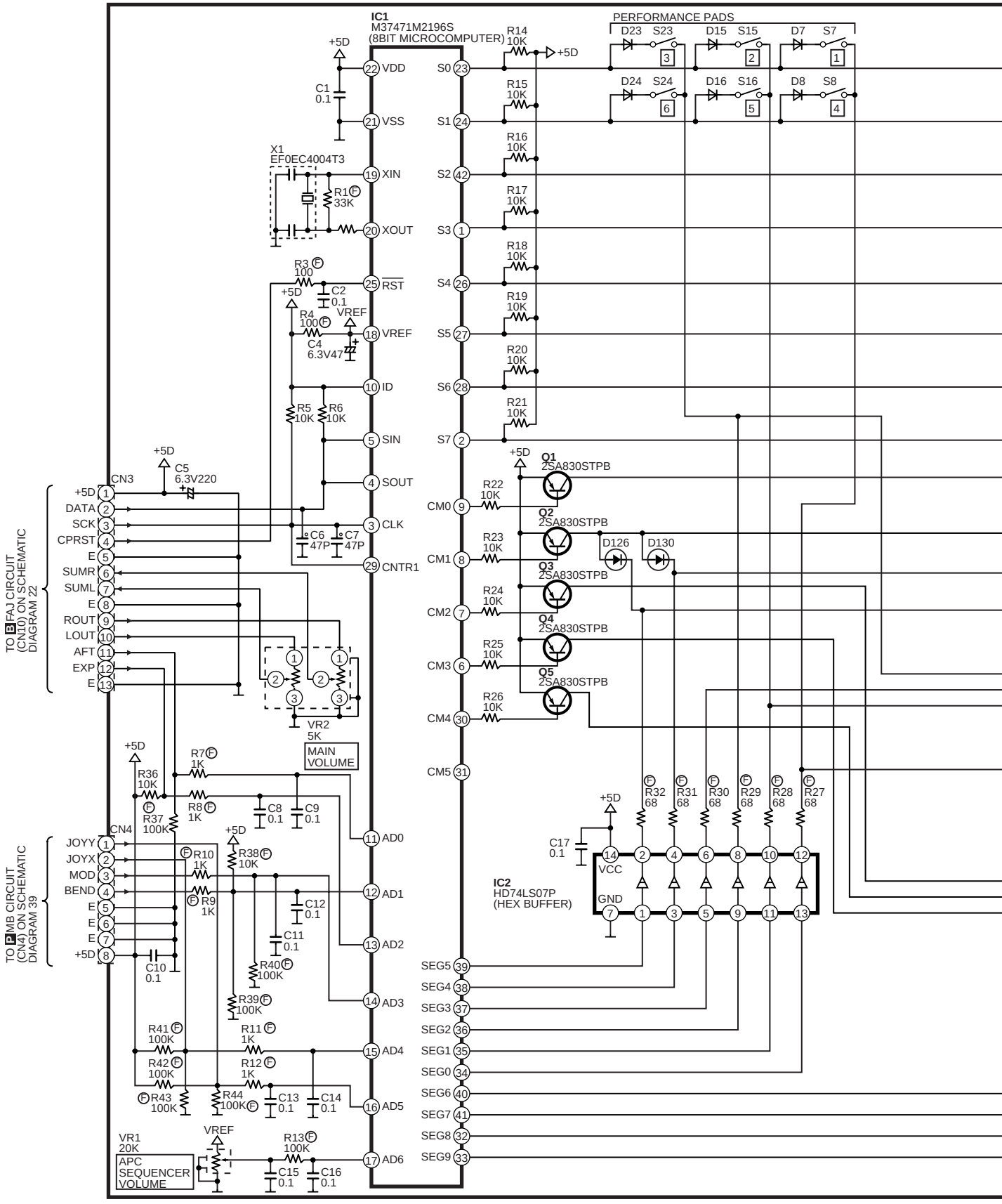


SCHEMATIC DIAGRAM-28

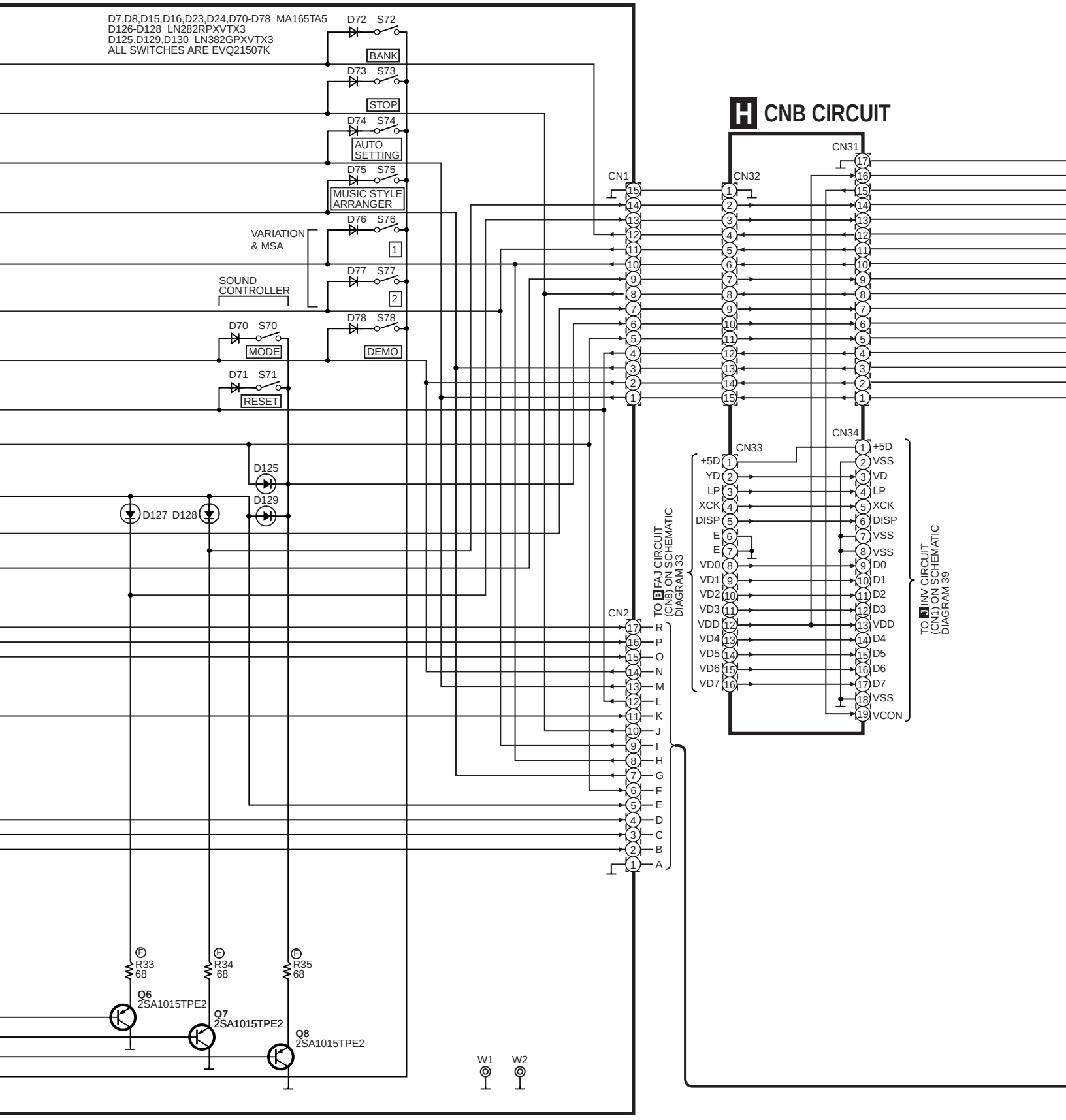


SCHEMATIC DIAGRAM-29

E CPL CIRCUIT

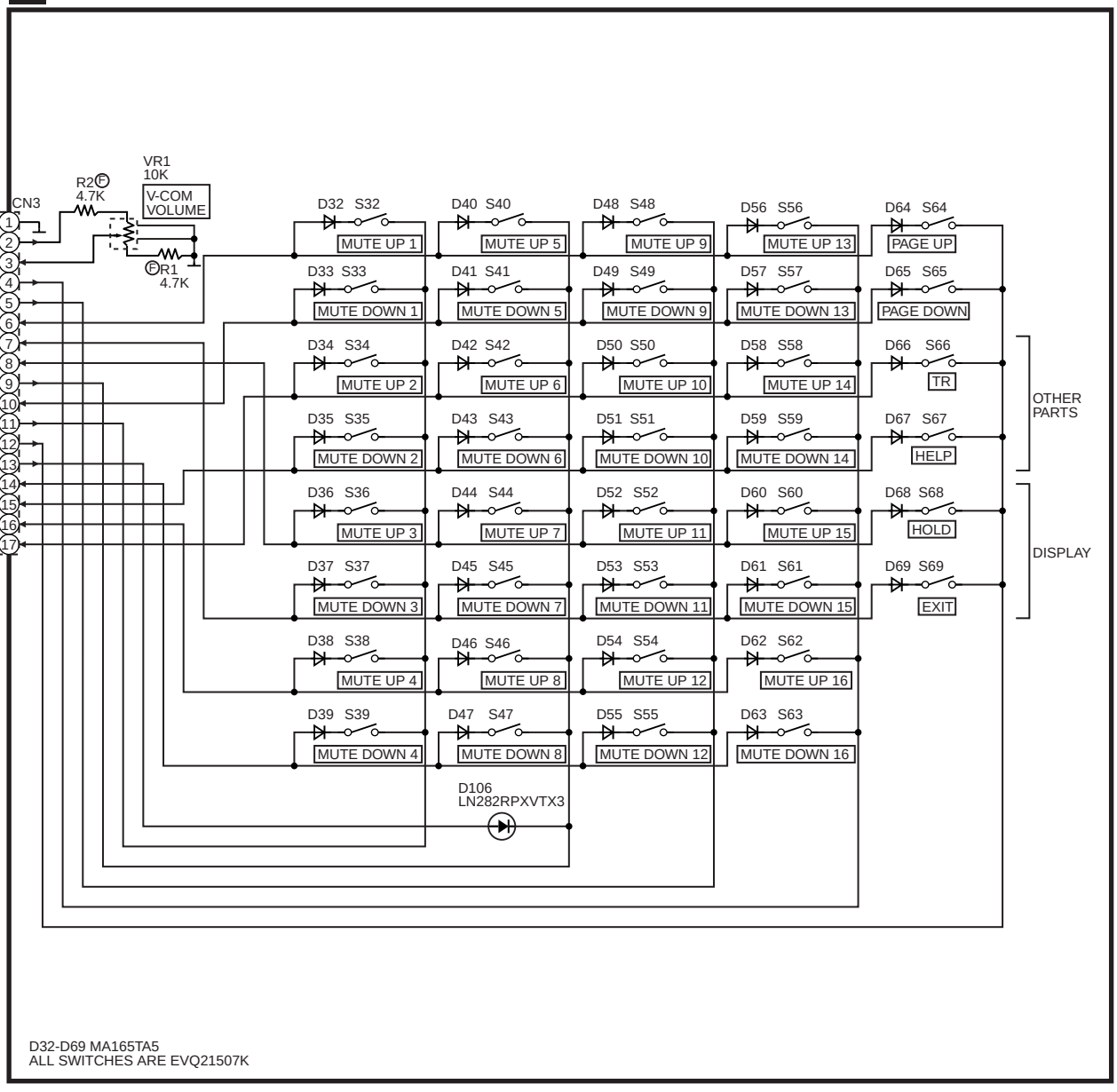


SCHEMATIC DIAGRAM-30



SCHEMATIC DIAGRAM-31

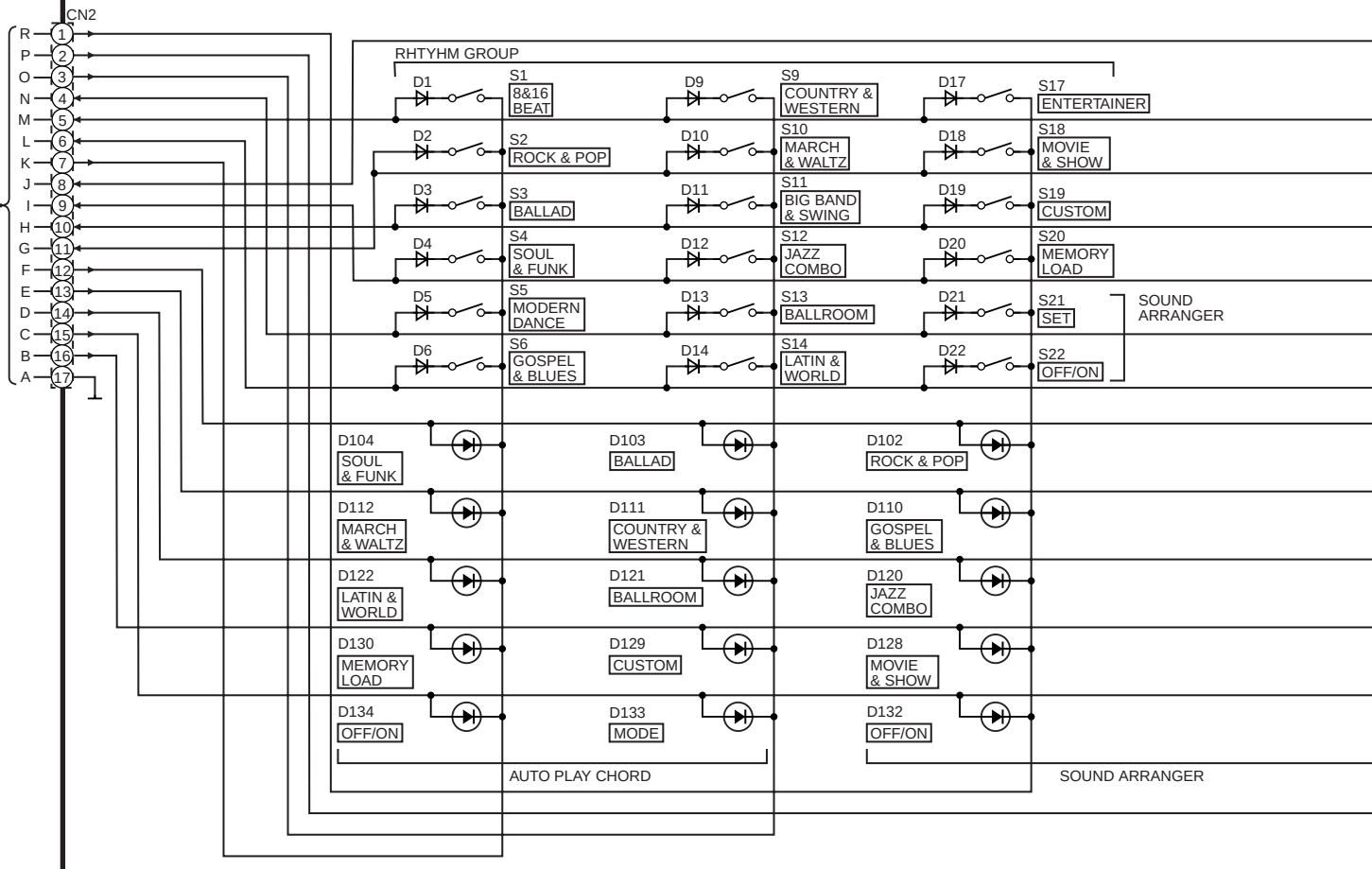
N LCDC CIRCUIT



D32-D69 MA165TA5
ALL SWITCHES ARE EVQ21507K

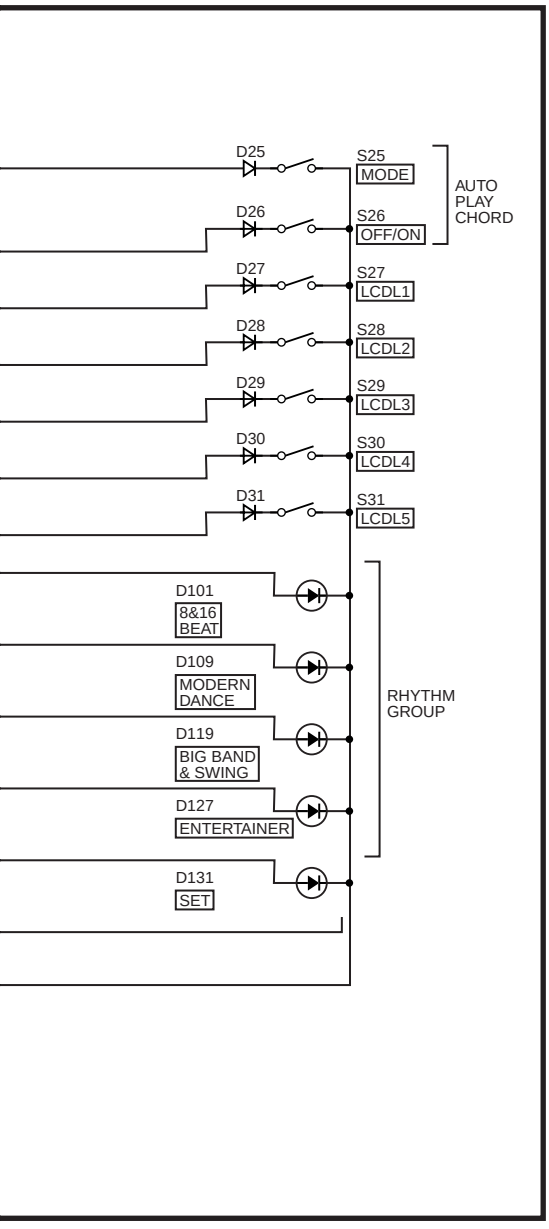
SCHEMATIC DIAGRAM-32

L LCDL CIRCUIT



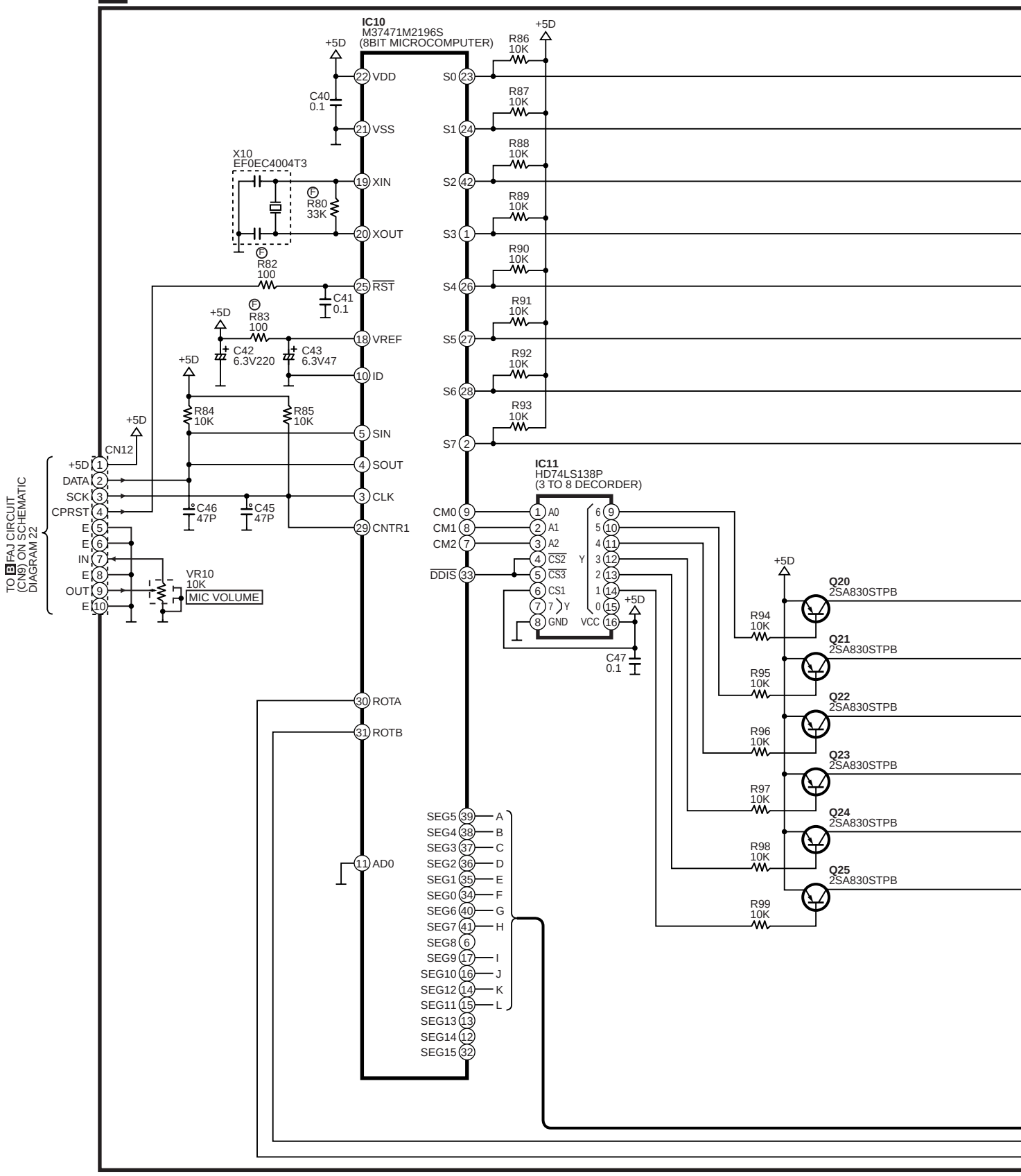
D1-D6,D9-D14,D17-D22,D25-D31 MA165TA5
D101-D104,D109-D112,D119-D122,D127,D128,D134 LN282RPXVTX2
D129-D133 LN382GPXVTX2
ALL SWITCHES ARE EVQ21507K

SCHEMATIC DIAGRAM-33



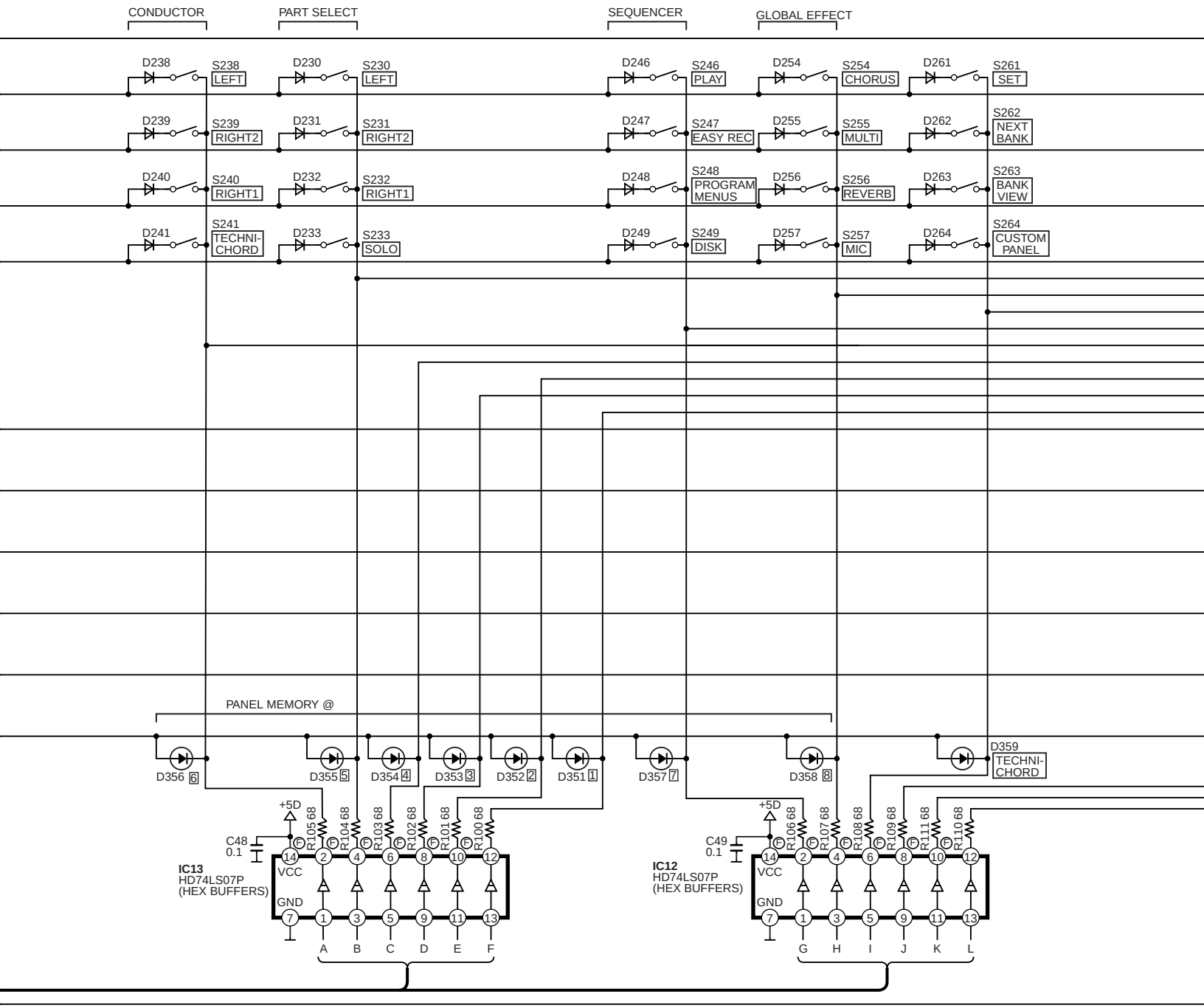
SCHEMATIC DIAGRAM-34

G CPR CIRCUIT

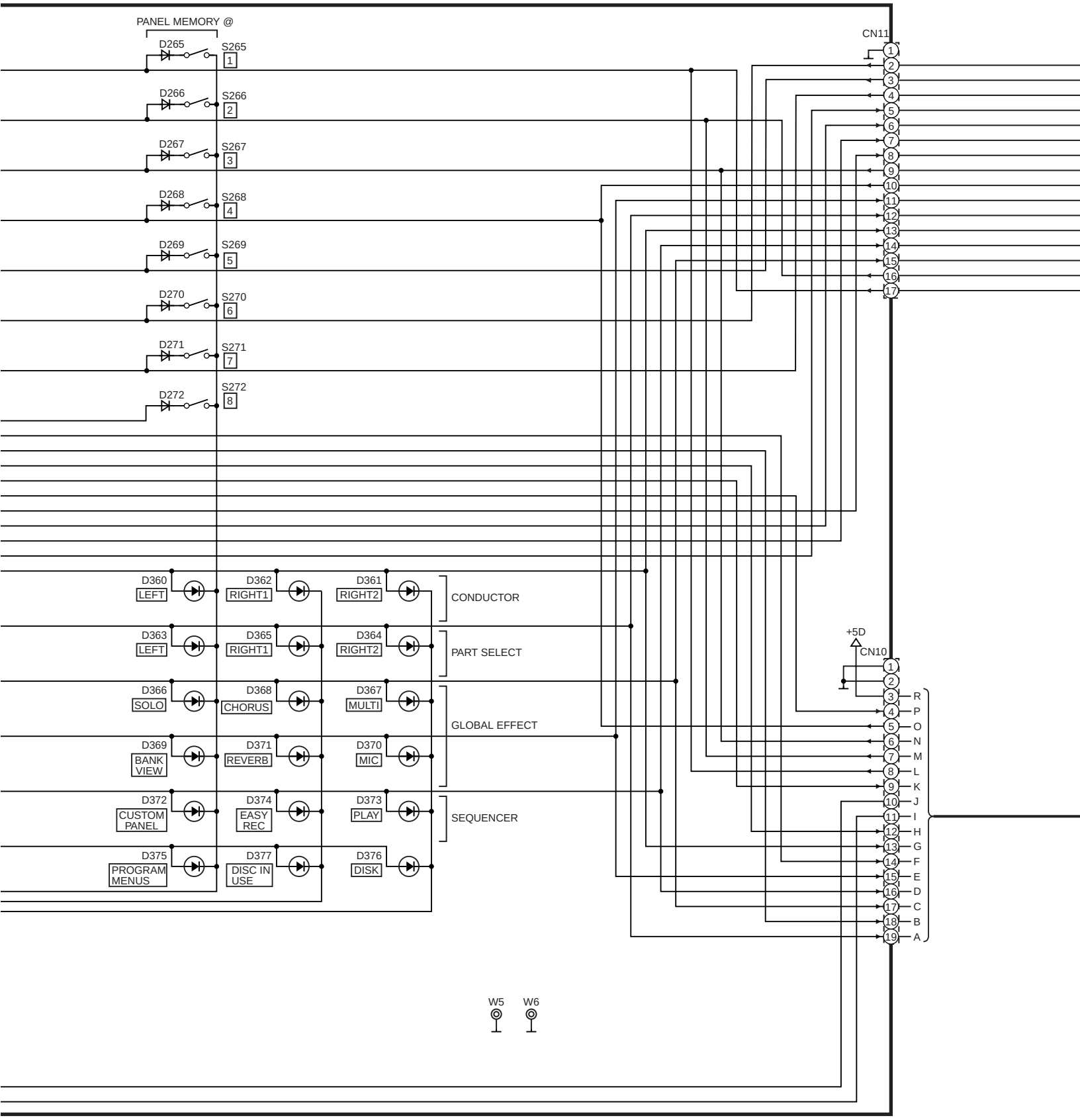


SCHEMATIC DIAGRAM-35

D230-D233,D238-D241,MA165TA5
D246-D249,D254-D257,D261-D272,D351-D358,D369,D372-D376 LN382GPXVTX3
D359-D368,D370,D371,D377 LN282RPXVTX3
ALL SWITCHES ARE EVQ21507K

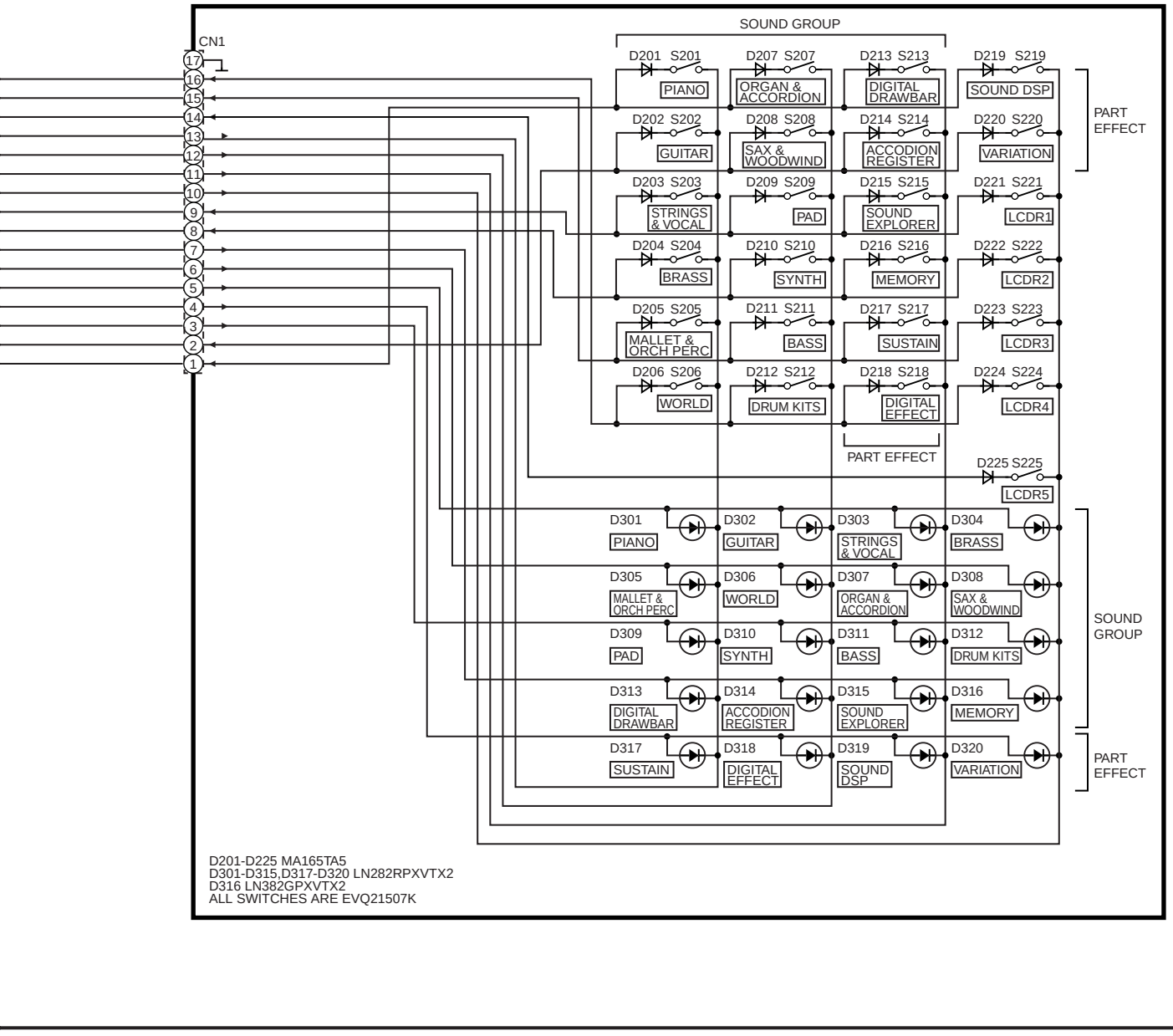


SCHEMATIC DIAGRAM-36



SCHEMATIC DIAGRAM-37

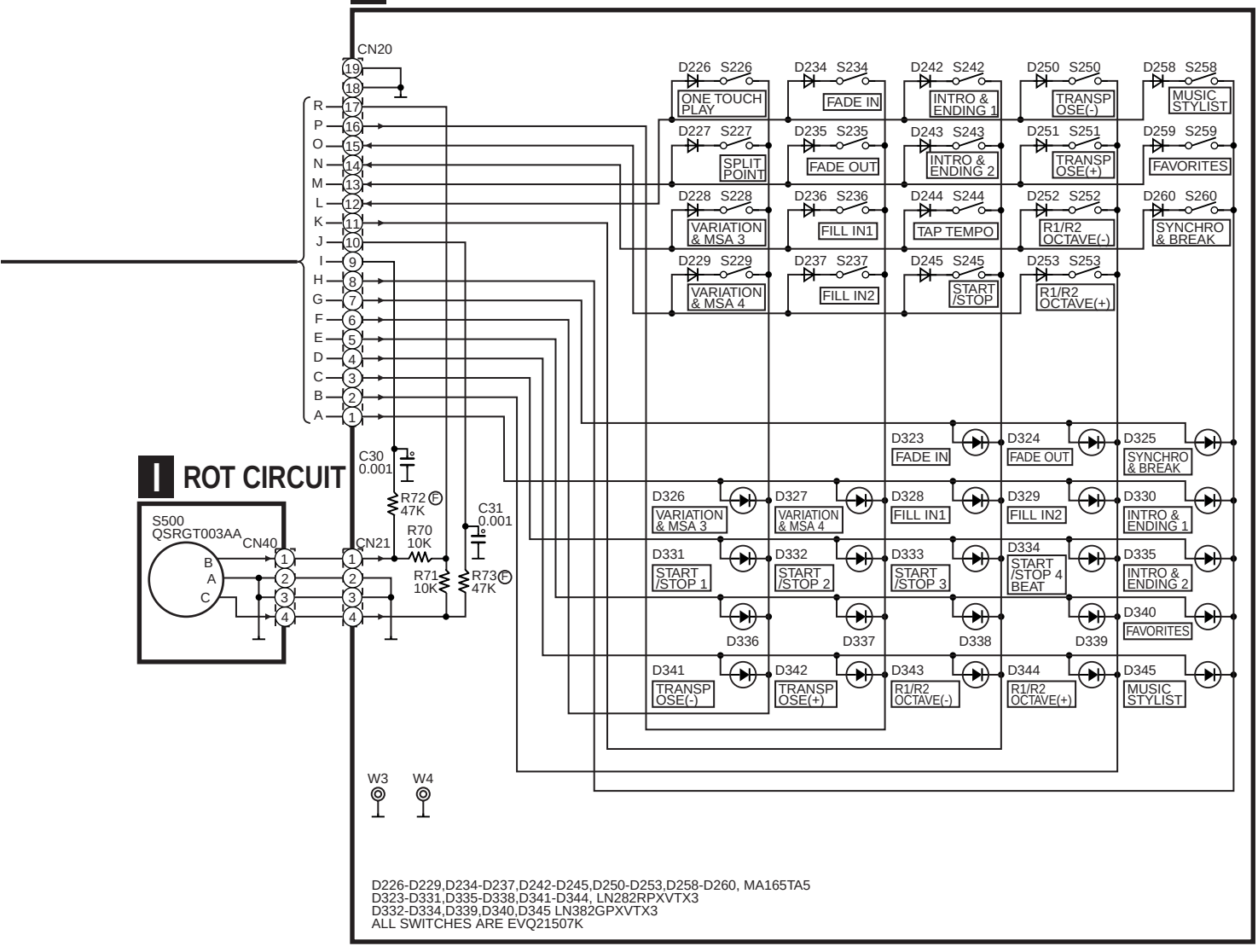
M LCDR CIRCUIT



D201-D225 MA165TA5
D301-D315,D317-D320 LN282RPXVTX2
D316 LN382GPXVTX2
ALL SWITCHES ARE EVQ21507K

SCHEMATIC DIAGRAM-38

F CPC CIRCUIT

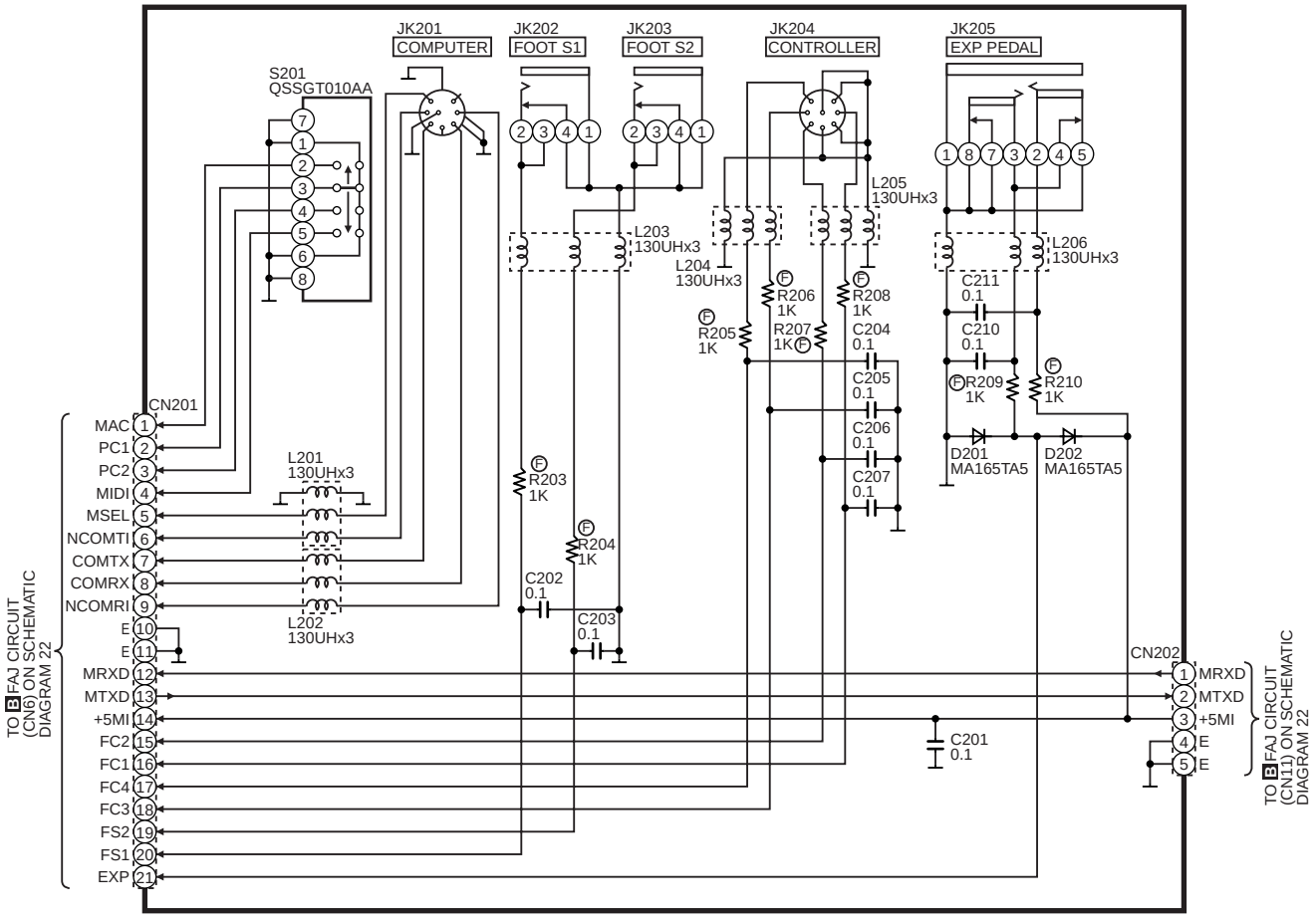


I ROT CIRCUIT

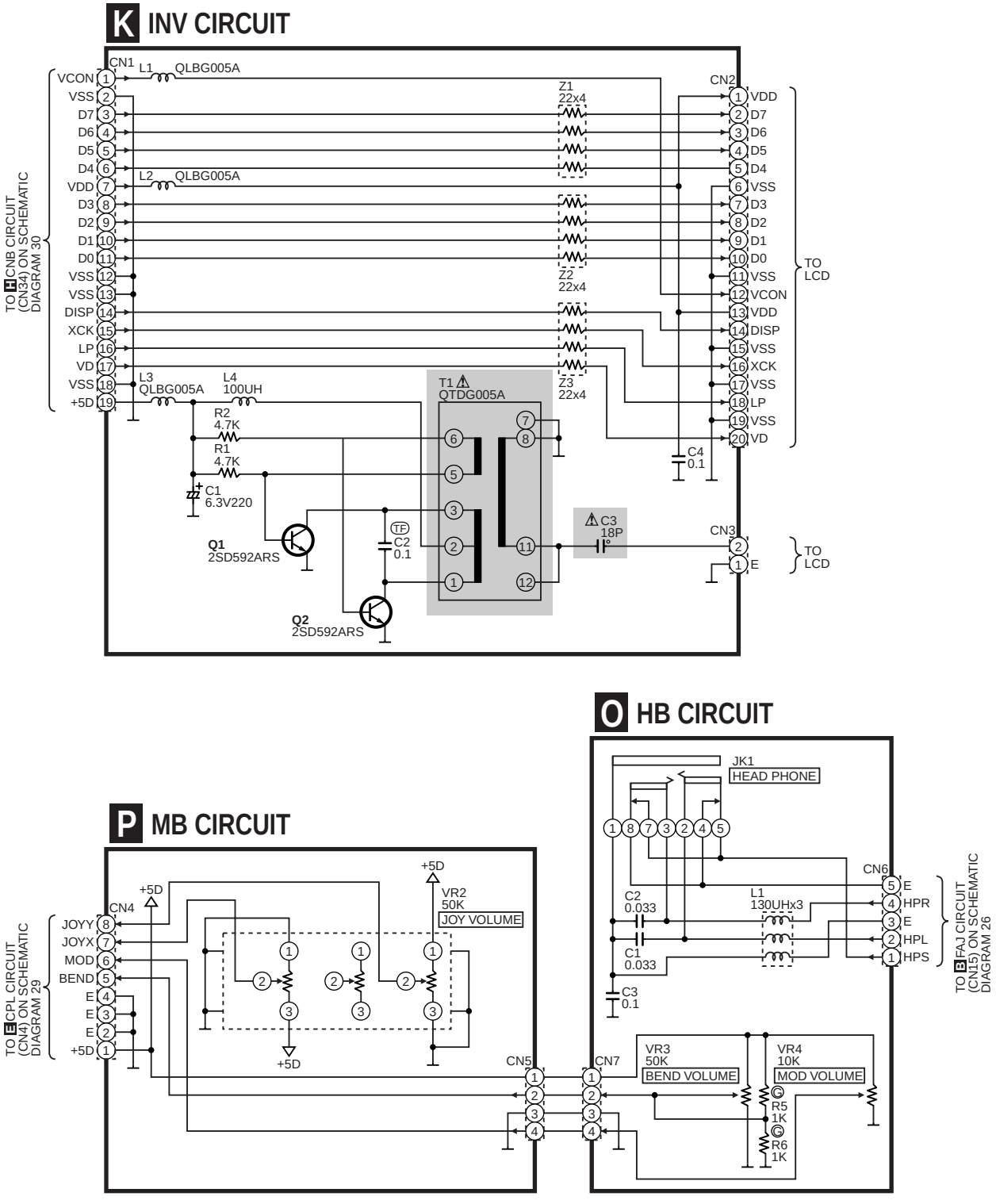
D226-D229,D234-D237,D242-D245,D250-D253,D258-D260, MA165TA5
D323-D331,D335-D338,D341-D344, LN282RPXVTX3
D332-D334,D339,D340,D345 LN382GPXVTX3
ALL SWITCHES ARE EVQ21507K

SCHEMATIC DIAGRAM-39

J JACK CIRCUIT

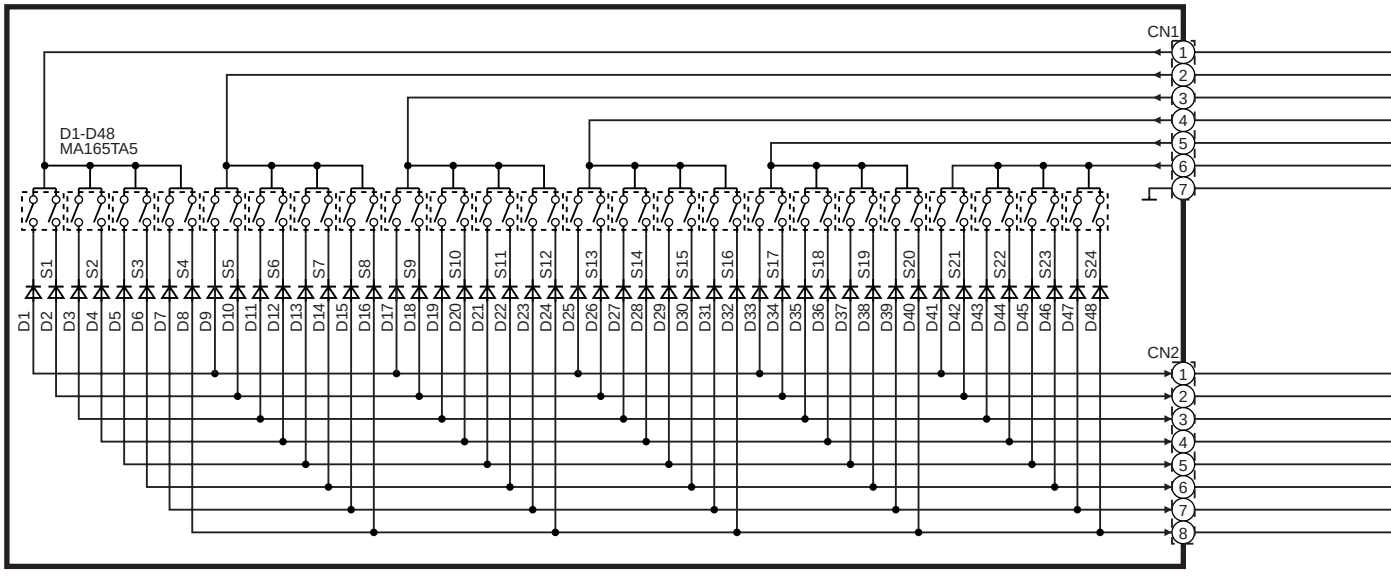


SCHEMATIC DIAGRAM-40

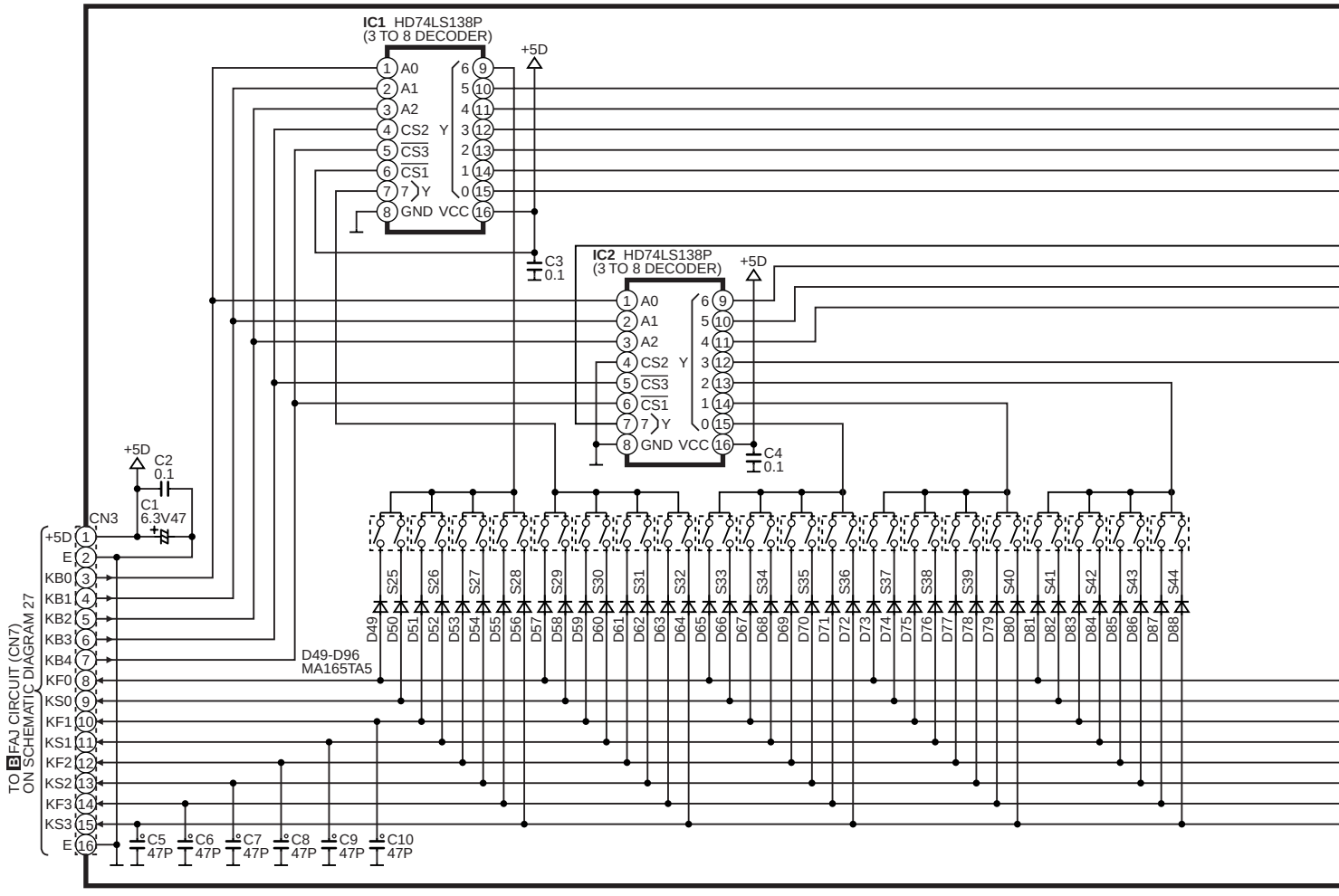


SCHEMATIC DIAGRAM-41

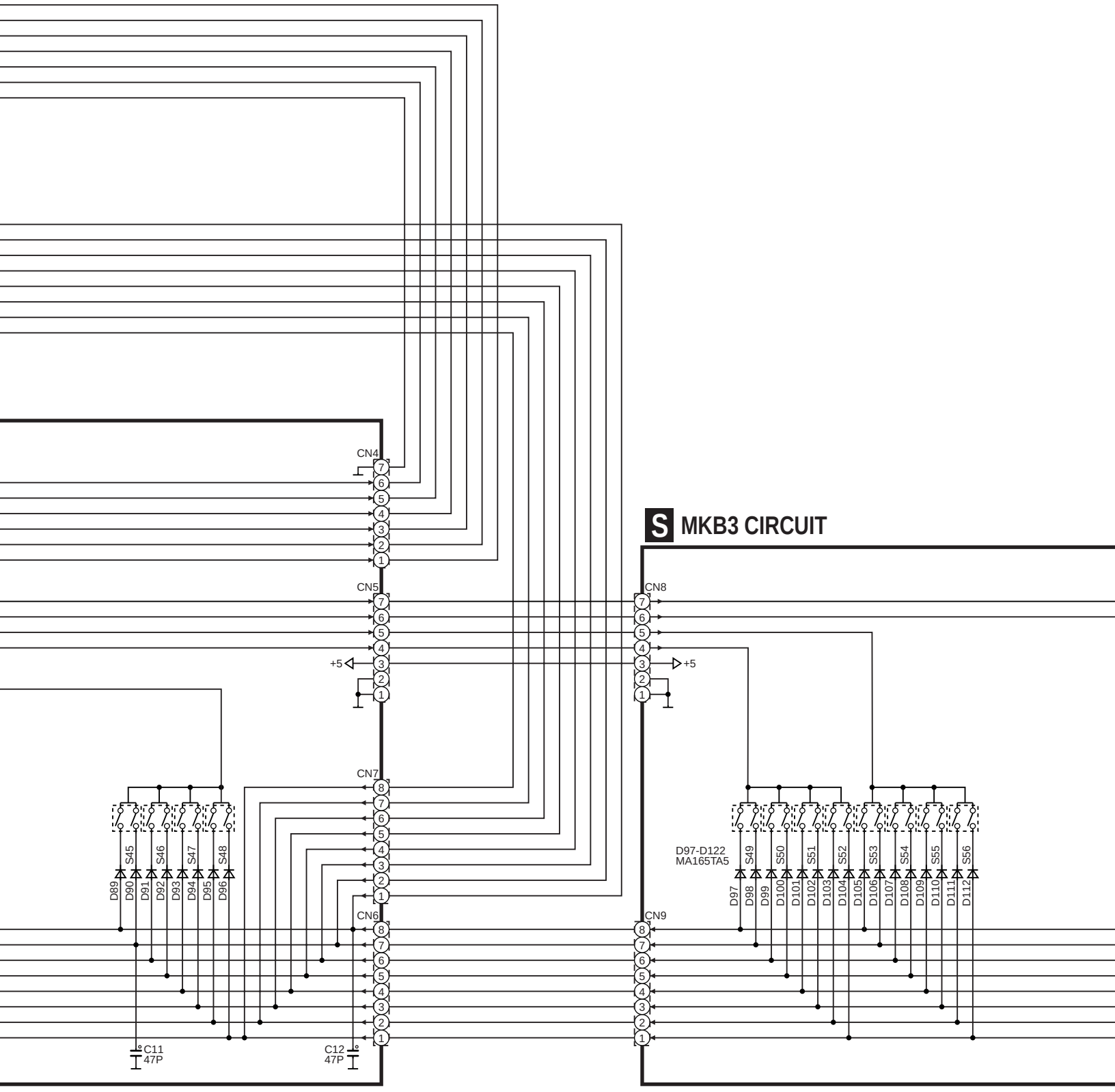
Q MKB1 CIRCUIT



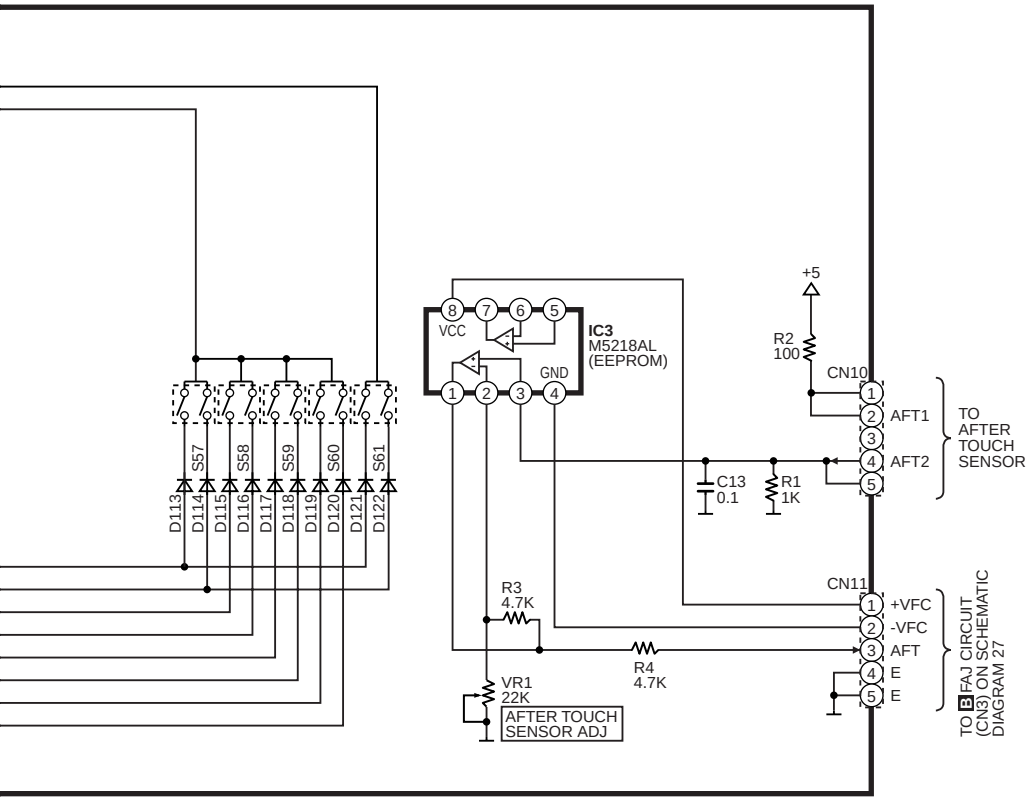
R MKB2 CIRCUIT



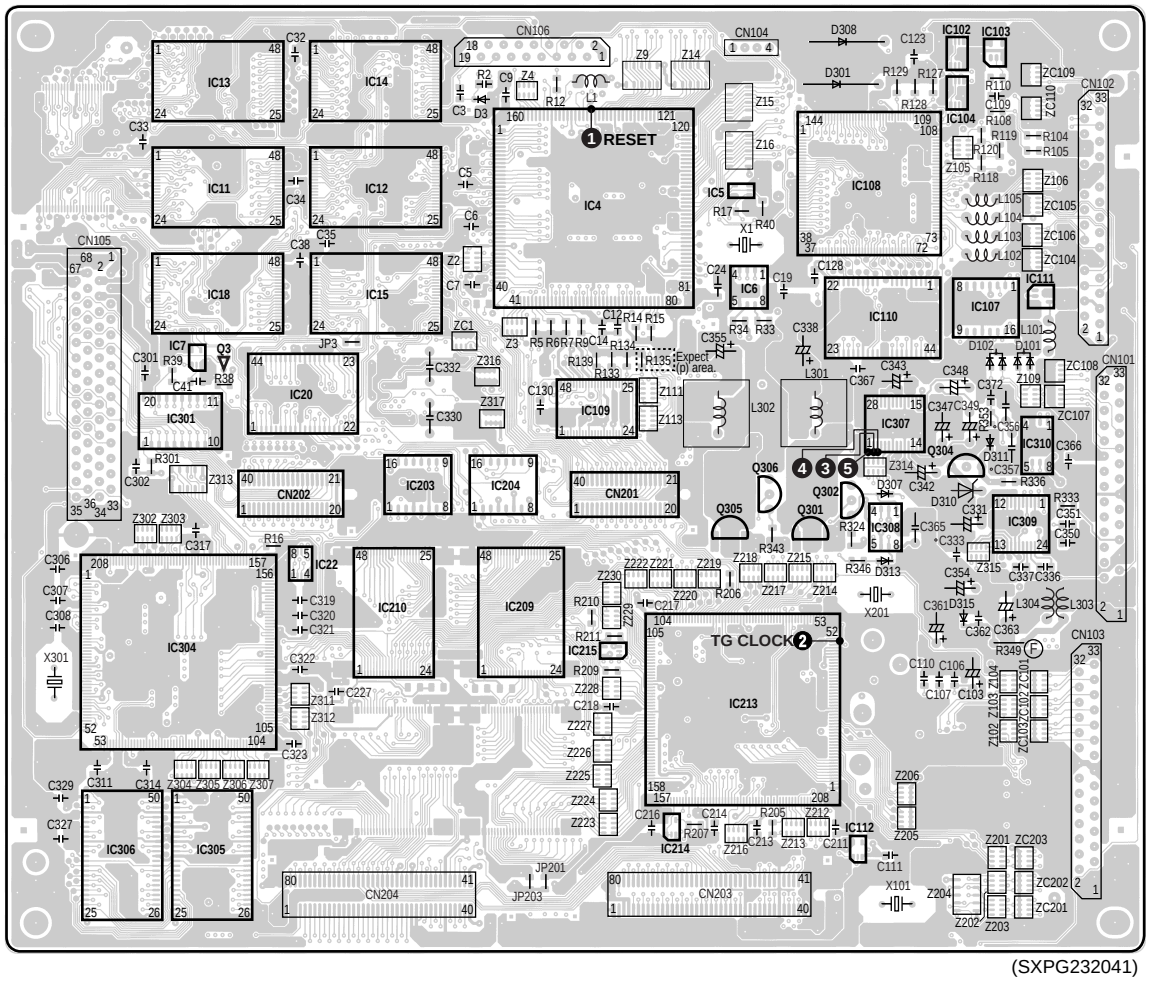
SCHEMATIC DIAGRAM-42



SCHEMATIC DIAGRAM-43

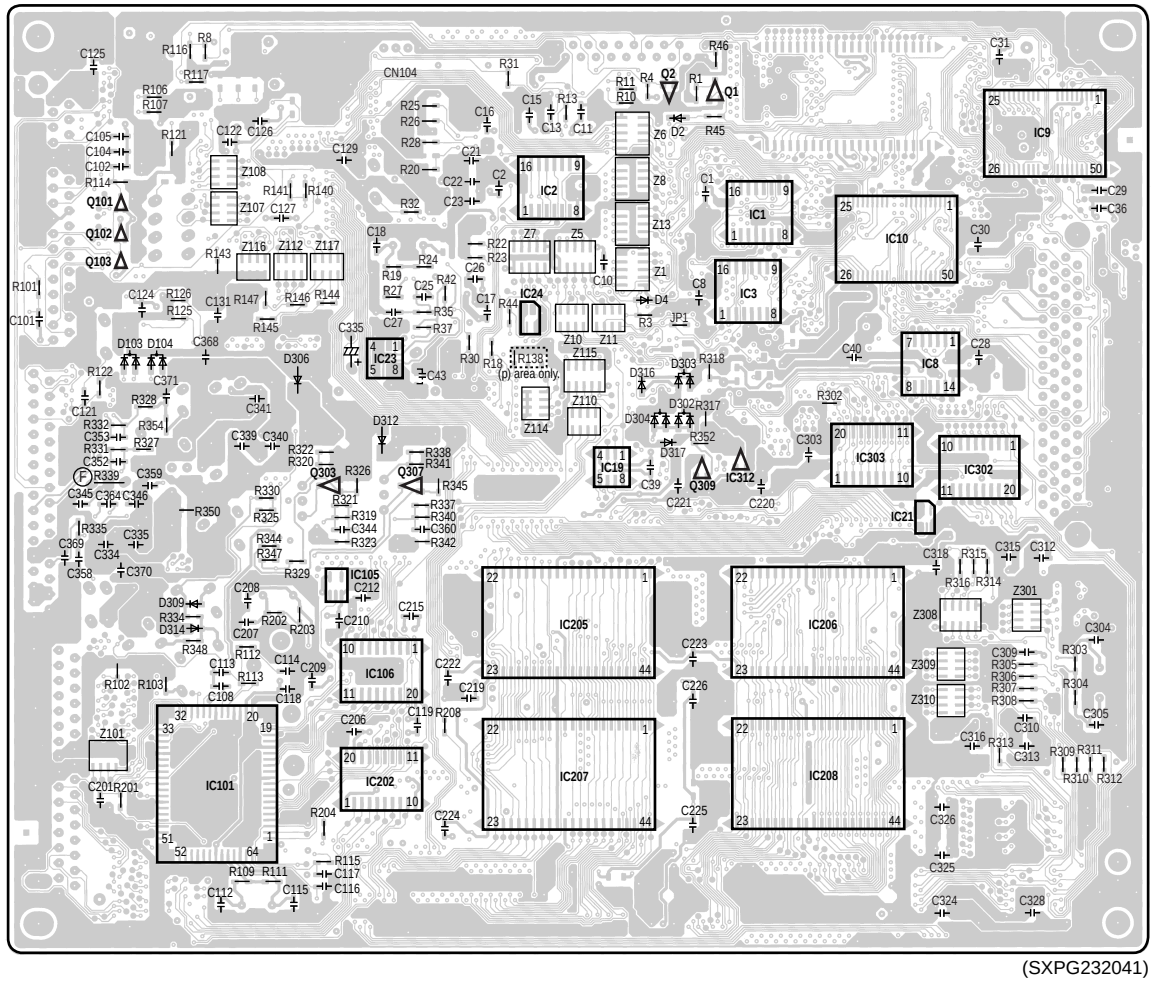


A MAIN P.C.B. (COMPONENT SIDE)



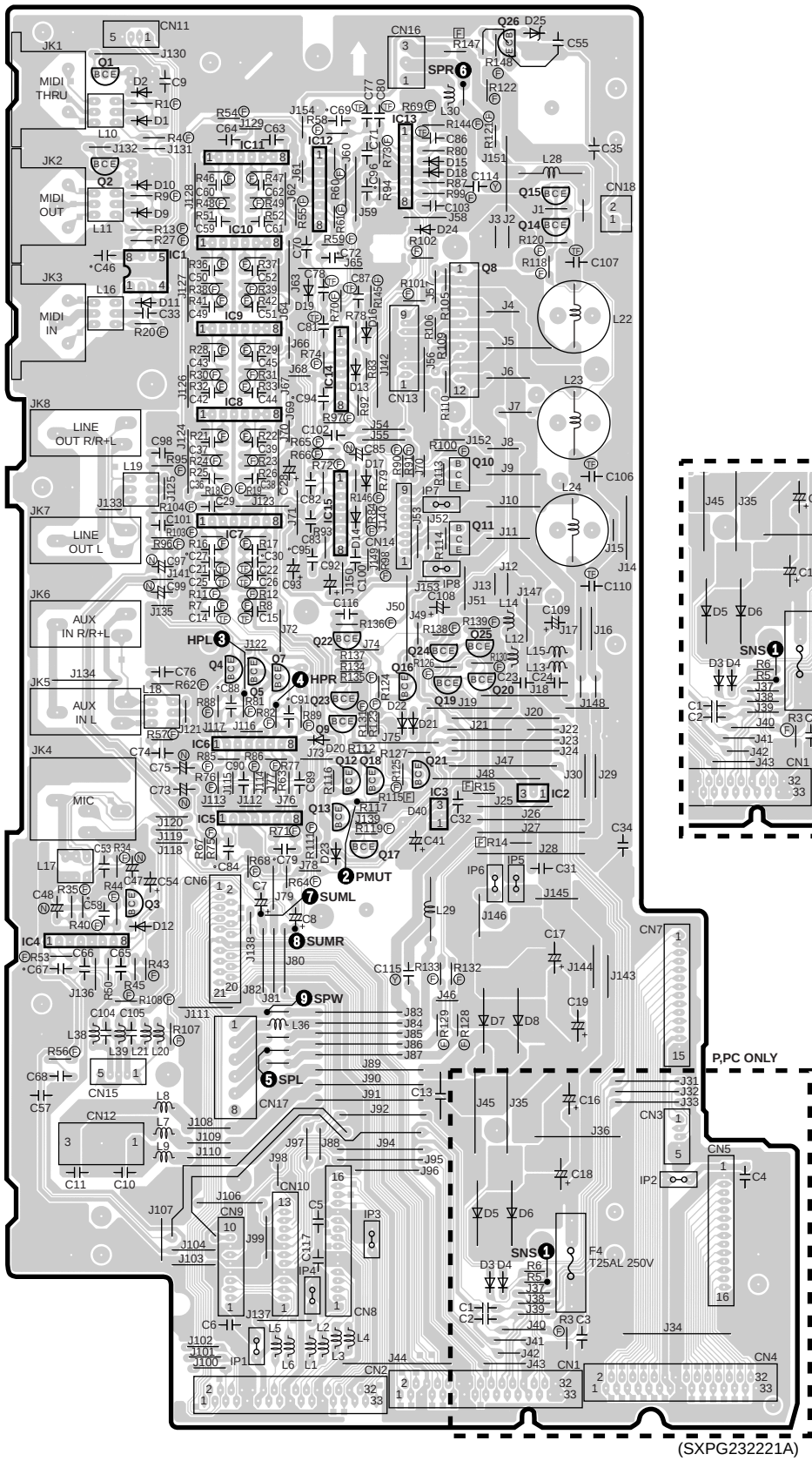
(SXPG232041)

A MAIN P.C.B. (FOIL SIDE)

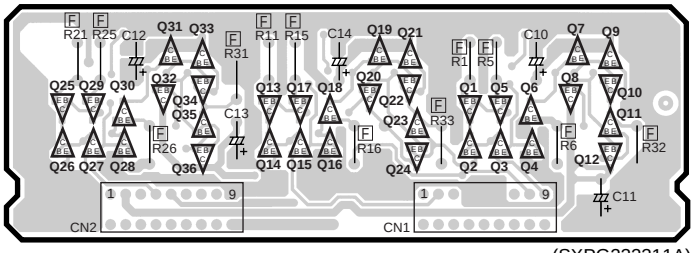


(SXPG232041)

B FAJ P.C.B.

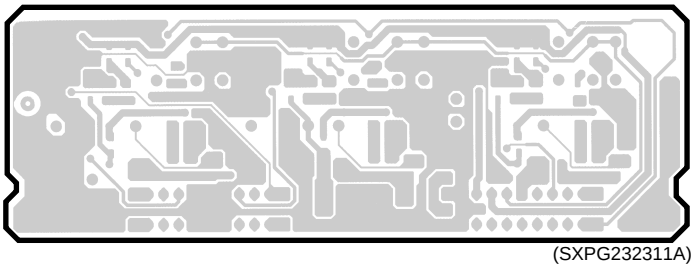

CN11
JK1
MIDI THRU
JK2
MIDI OUT
JK3
MIDI IN
JK8
LINE OUT R/R+L
JK7
LINE OUT L
JK6
AUX IN R/R+L
JK5
AUX IN L
JK4
MIC
CN16
SPR 6
Q26
D25
C55
R147
R148
R122
IC13
IC12
IC11
IC10
IC9
IC8
IC7
IC6
IC5
IC4
IC1
IC14
IC15
Q8
Q10
Q11
Q15
Q14
L22
L23
L24
C107
C106
C110
HPL 3
HPR 4
SUML 7
SUMR 8
PMUT 2
SPW 9
SPL 5
Q1
Q2
Q3
Q4
Q5
Q7
Q9
Q12
Q13
Q16
Q17
Q18
Q19
Q20
Q21
Q22
Q23
Q24
Q25
CN18
CN15
CN12
CN17
CN10
CN9
CN8
CN2
CN1
CN4
CN5
CN6
CN7
CN3
IP1
IP2
IP3
IP4
IP5
IP6
IP7
IP8
SNS 1
F4
25A 125V
T25AL 250V
P,PC ONLY
EXCEPT P,PC
(SXPG232211A)
(SXPG232221A)

C ASUB P.C.B. (COMPONENT SIDE)



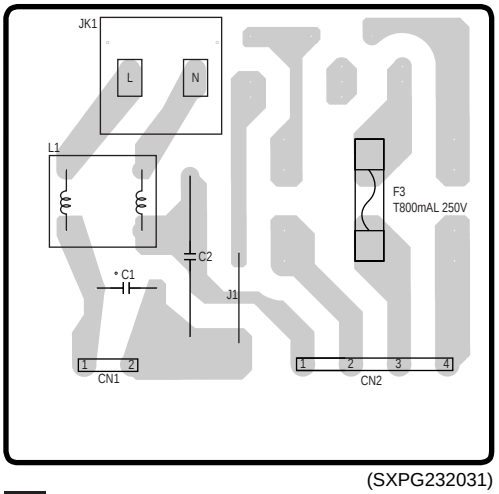
(SXPG232311A)

C ASUB P.C.B. (FOIL SIDE)



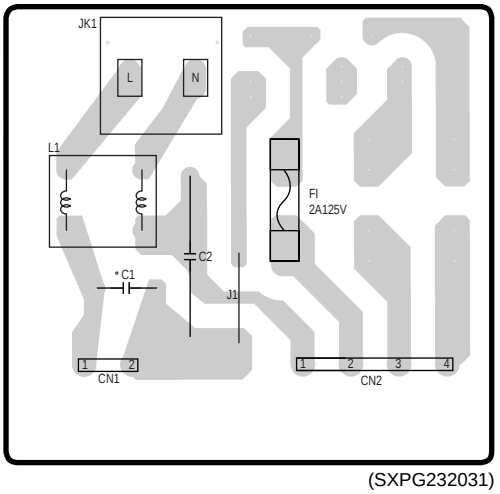
(SXPG232311A)

D ACP P.C.B. (EX,EZ,EB,EG,EH,GN)



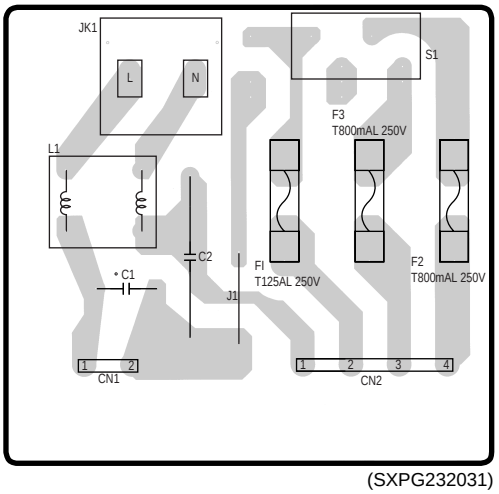
(SXPG232031)

D ACP P.C.B. (P,PC)



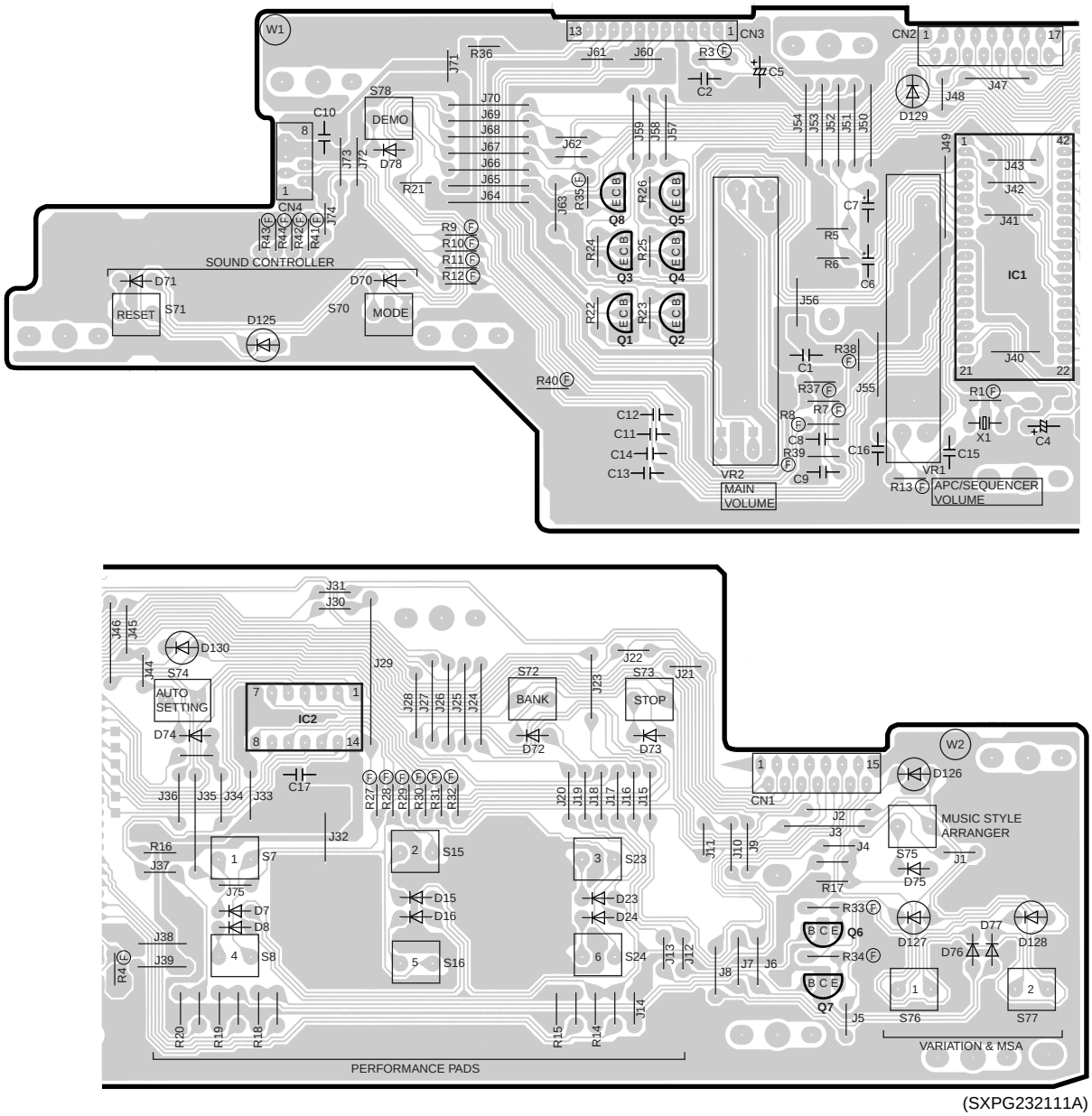
(SXPG232031)

D ACP P.C.B. (X,XS,XD,XT,XA)



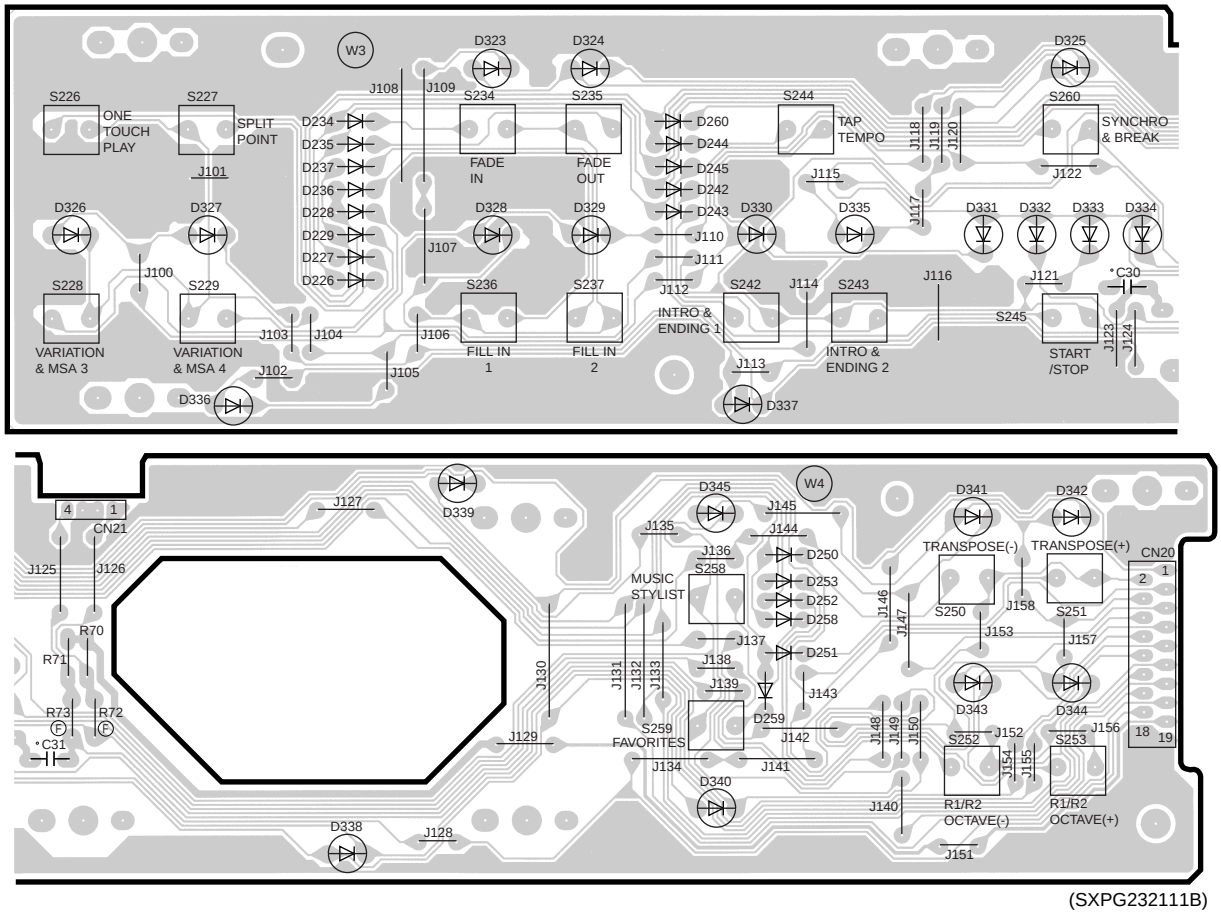
(SXPG232031)

E CPL P.C.B.



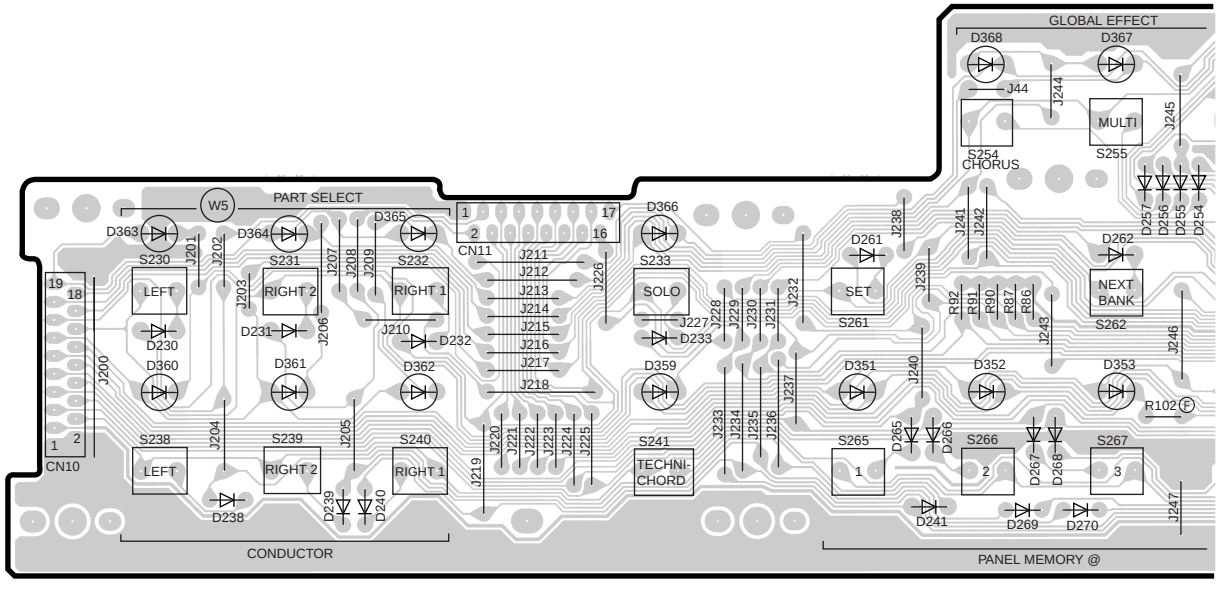
(SXPG232111A)

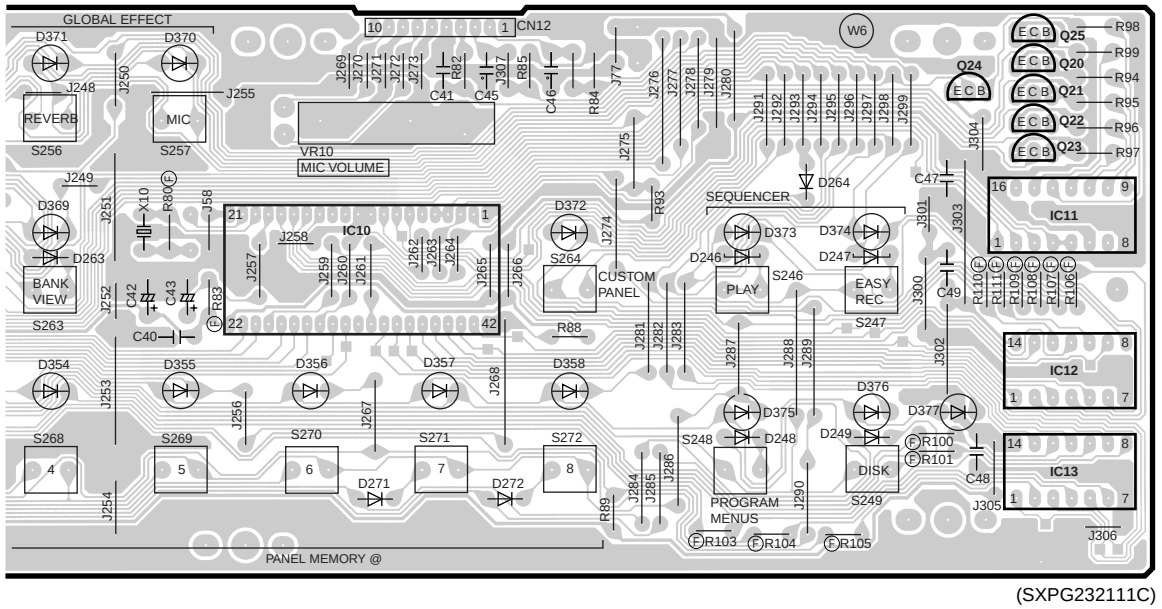
F CPC P.C.B.



(SXPG232111B)

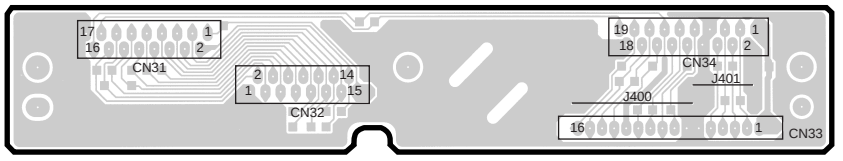
G CPR P.C.B.





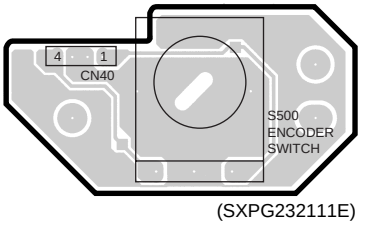
(SXPG232111C)

H CNB P.C.B.



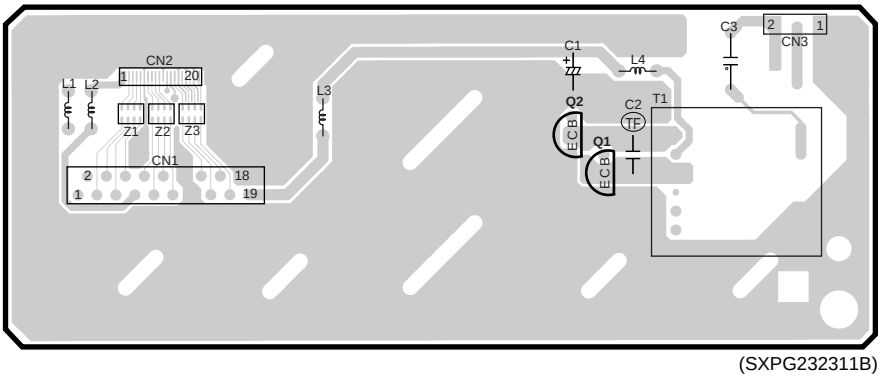
(SXPG232111D)

I ROT P.C.B.



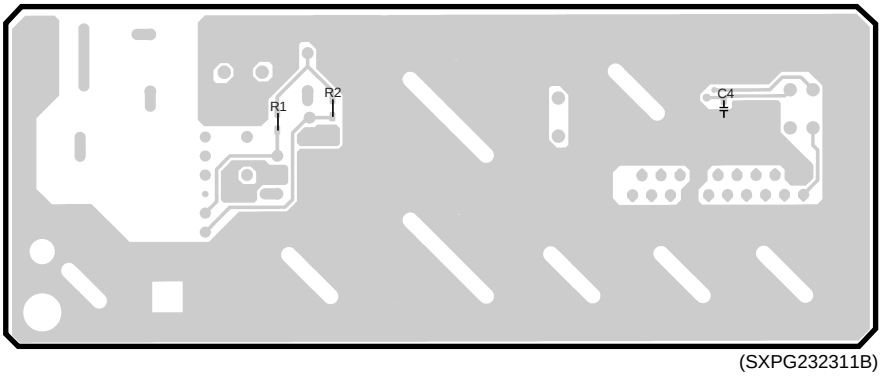
(SXPG232111E)

K INV P.C.B. (COMPONENT SIDE)



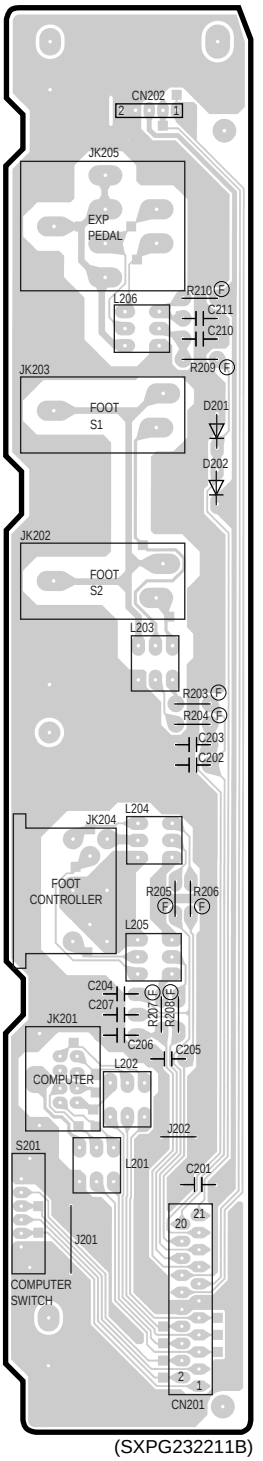
(SXPG232311B)

K INV P.C.B. (FOIL SIDE)



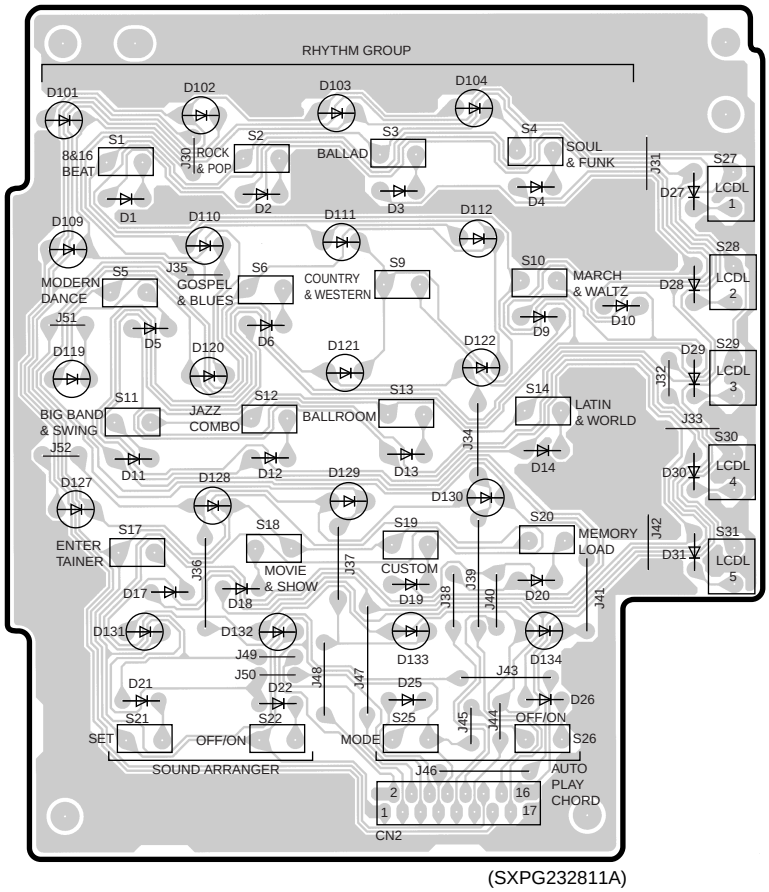
(SXPG232311B)

J JACK P.C.B.



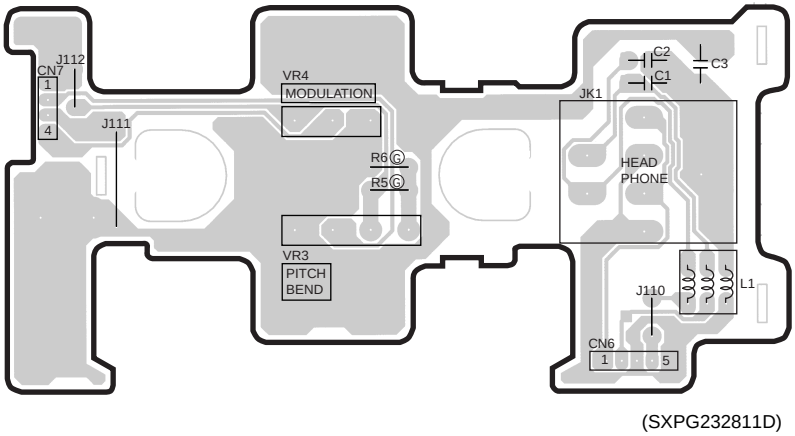
(SXPG232211B)

L LCDL P.C.B.



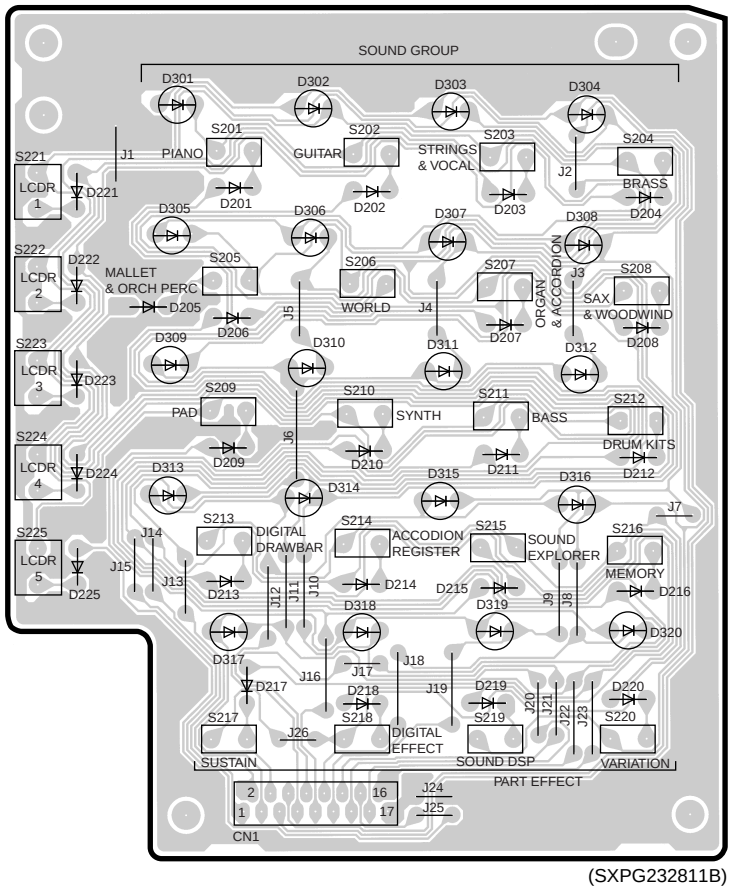
(SXPG232811A)

O HB P.C.B.



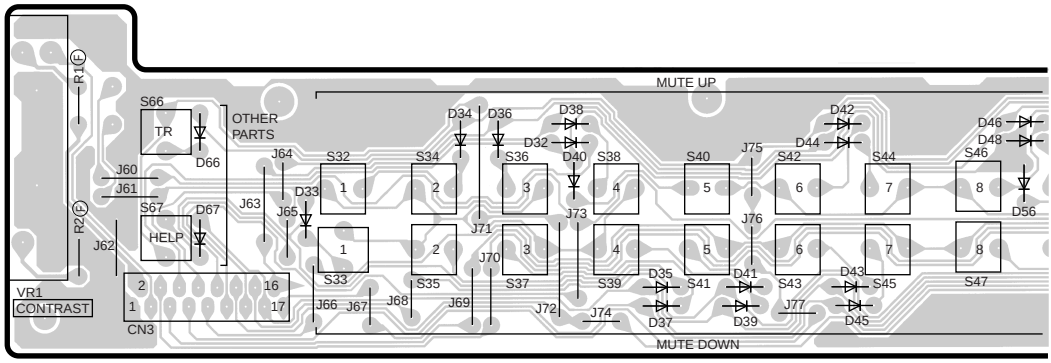
(SXPG232811D)

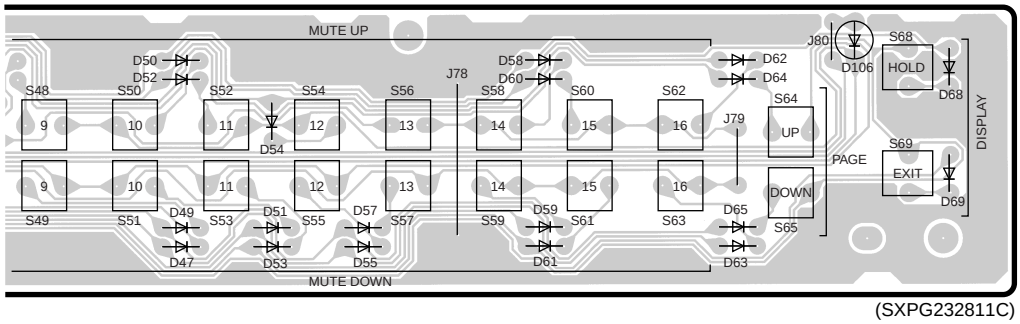
M LCDR P.C.B.



(SXPG232811B)

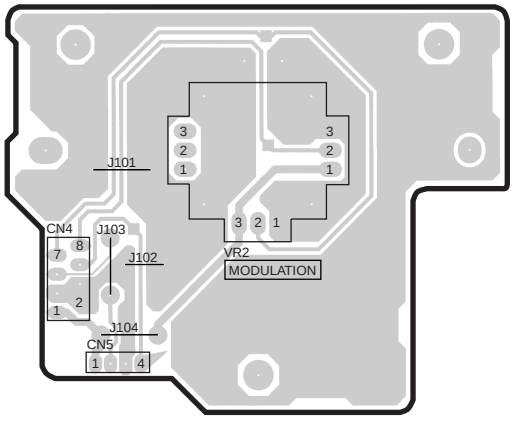
N LCDC P.C.B.





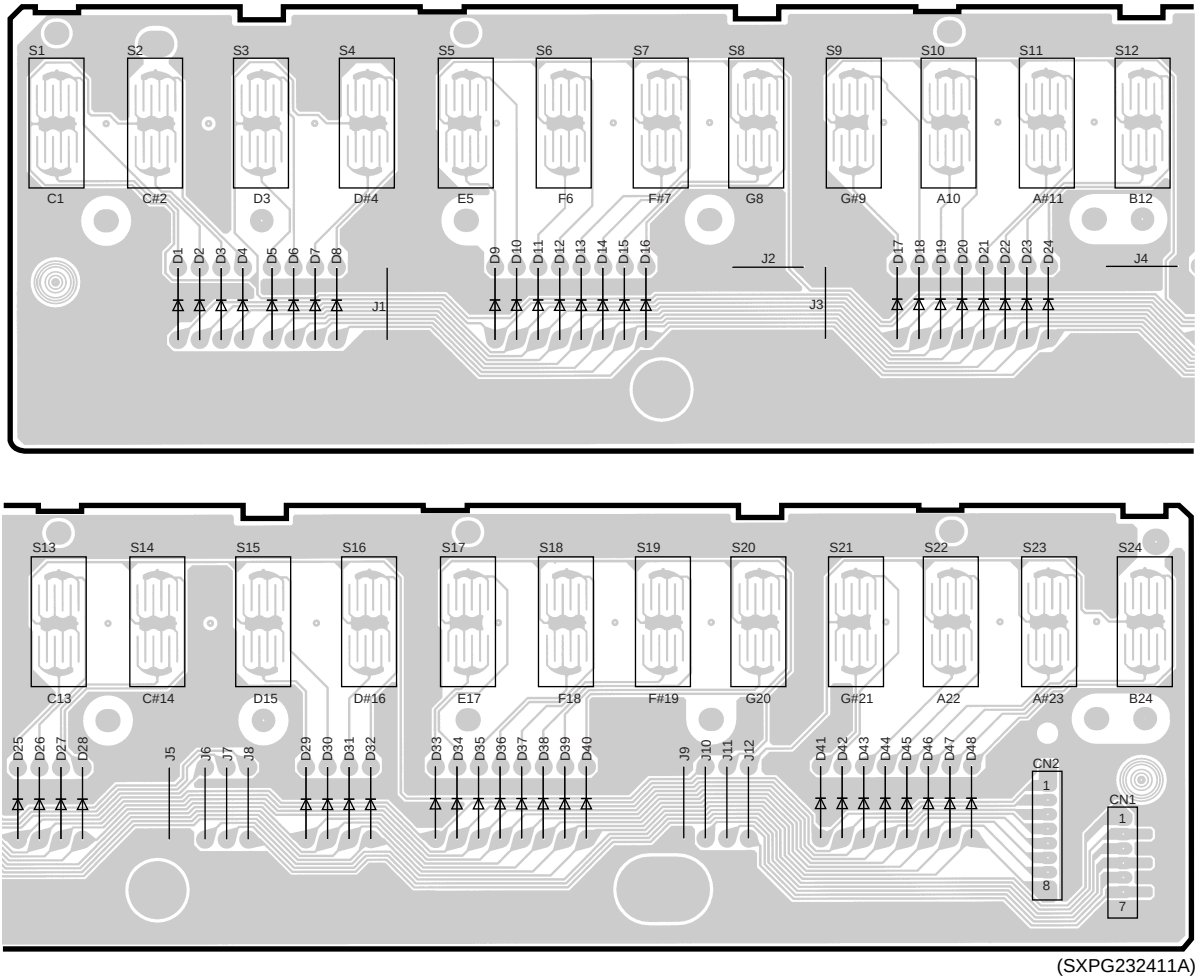
(SXPG232811C)

P MB P.C.B.



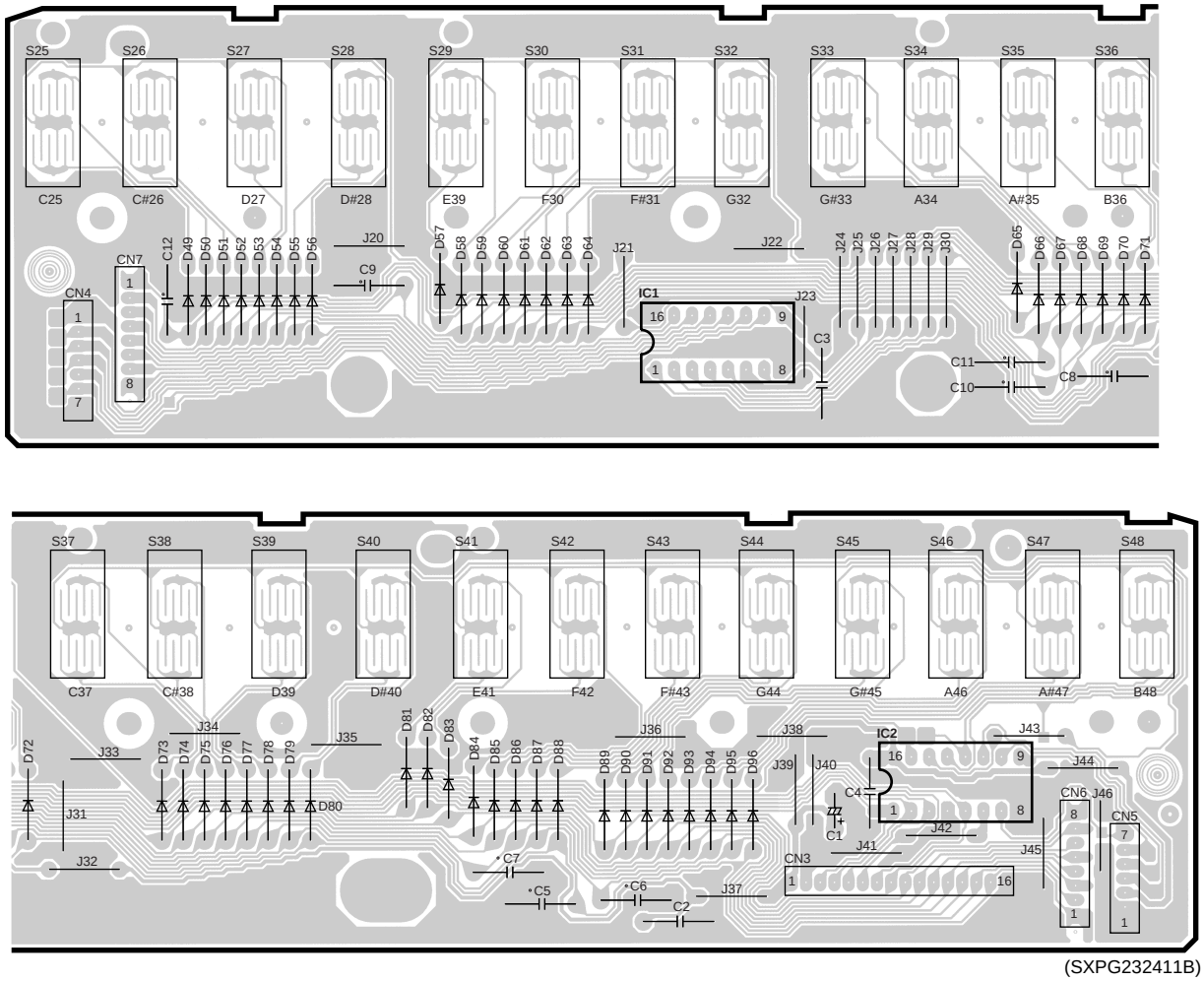
(SXPG232811E)

Q MKB1 P.C.B.



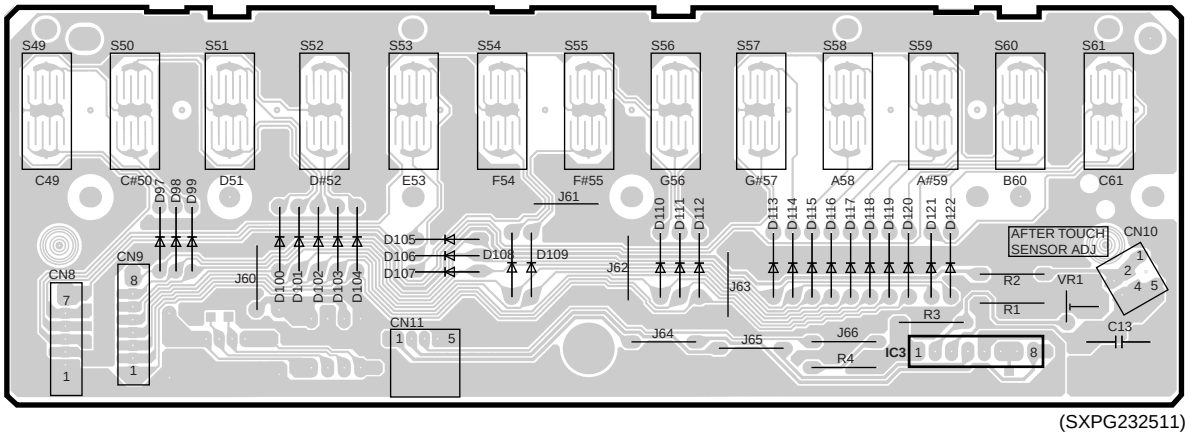
(SXPG232411A)

R MKB2 P.C.B.

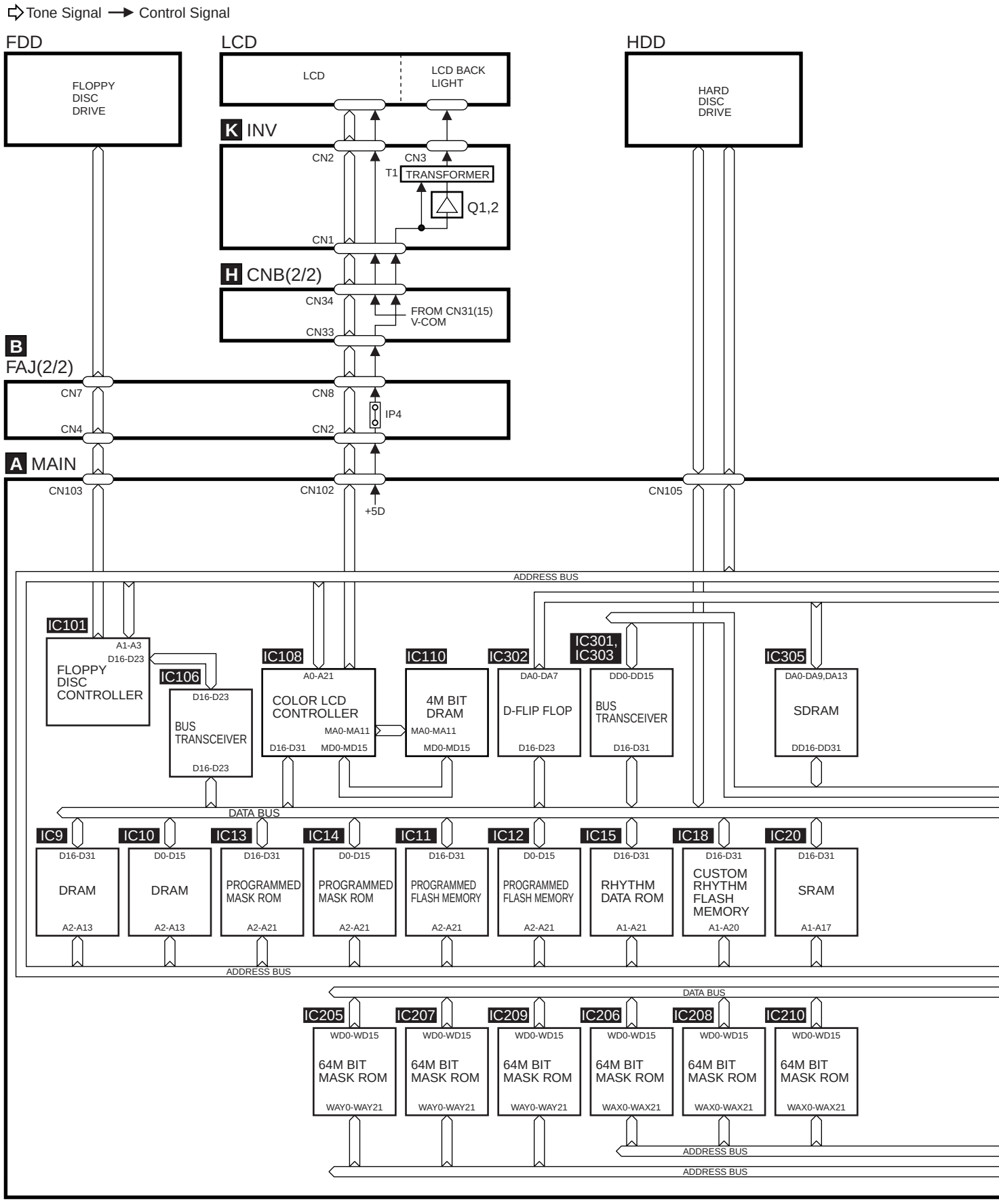


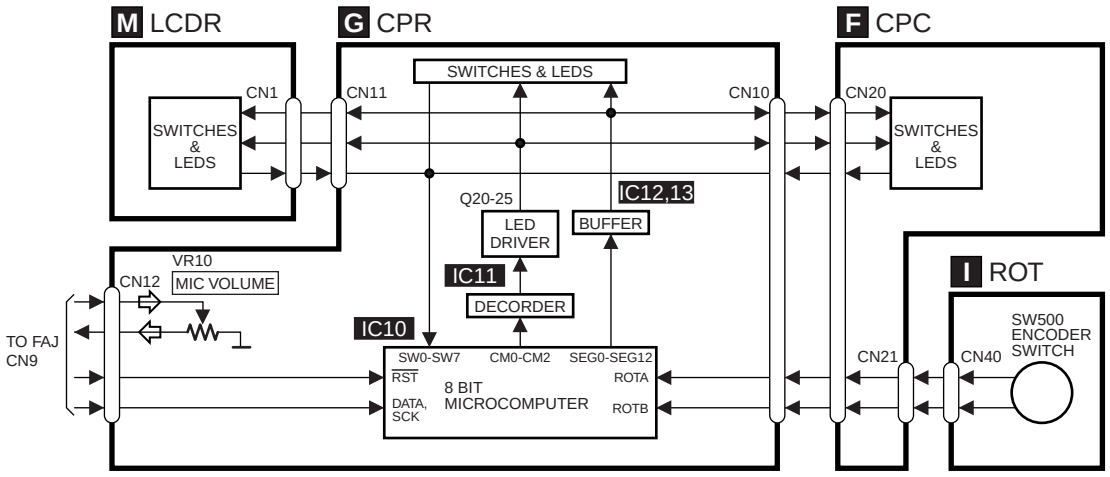
(SXPG232411B)

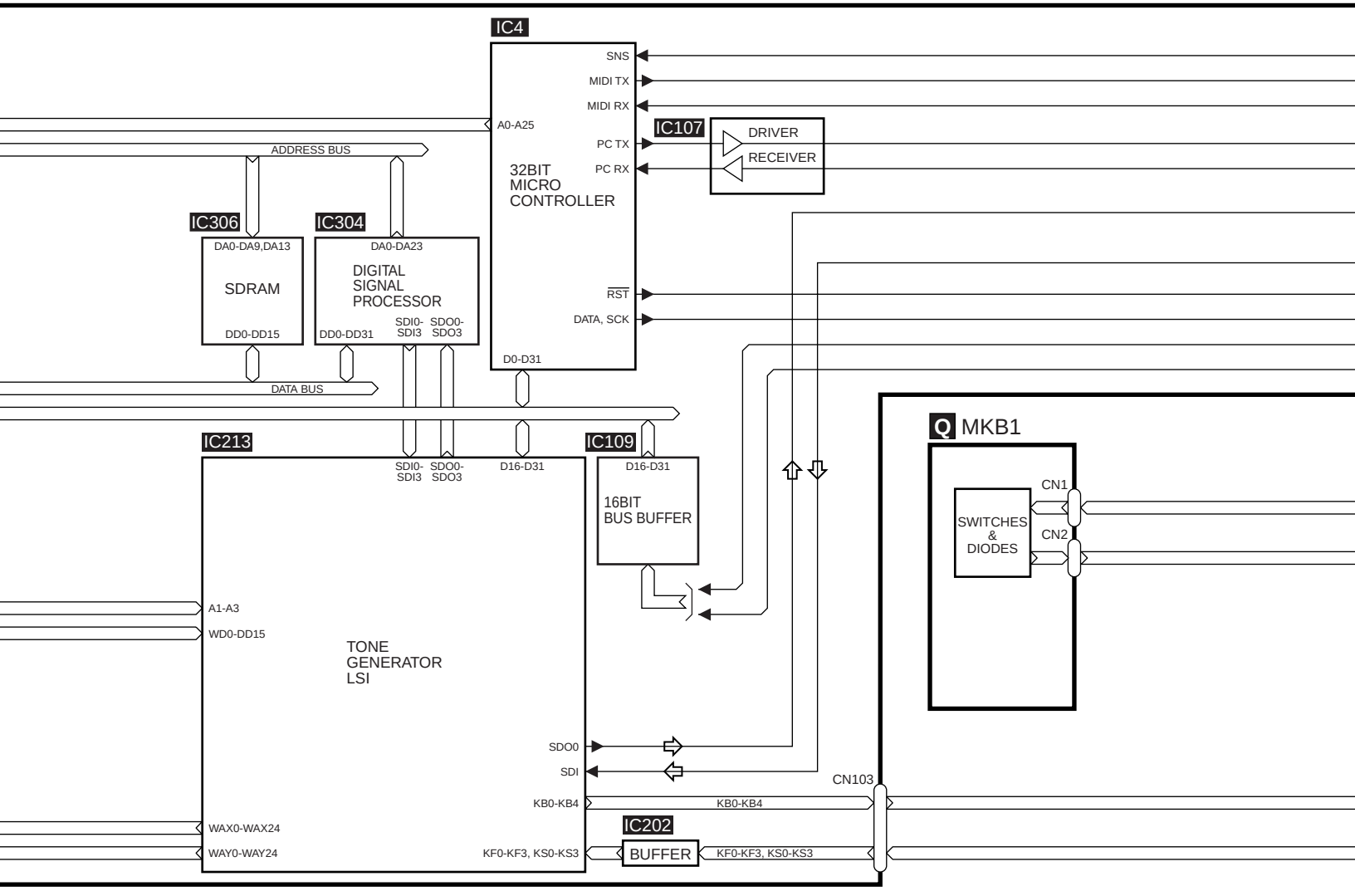
S MKB3 P.C.B.

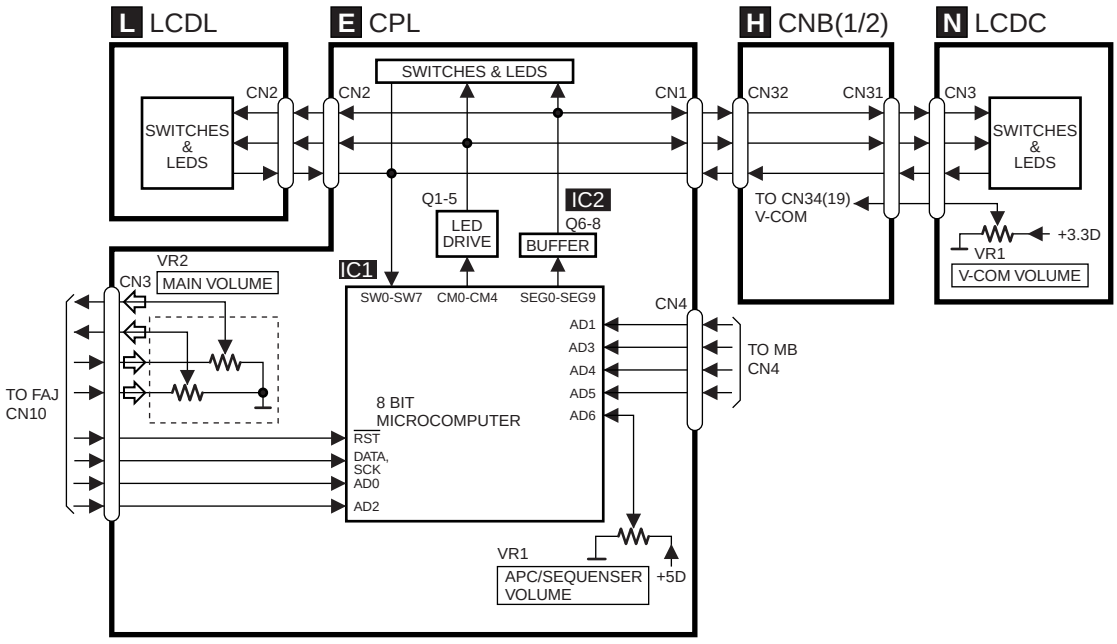


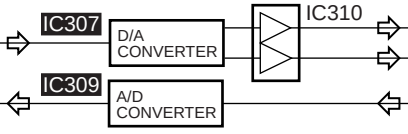
(SXPG232511)

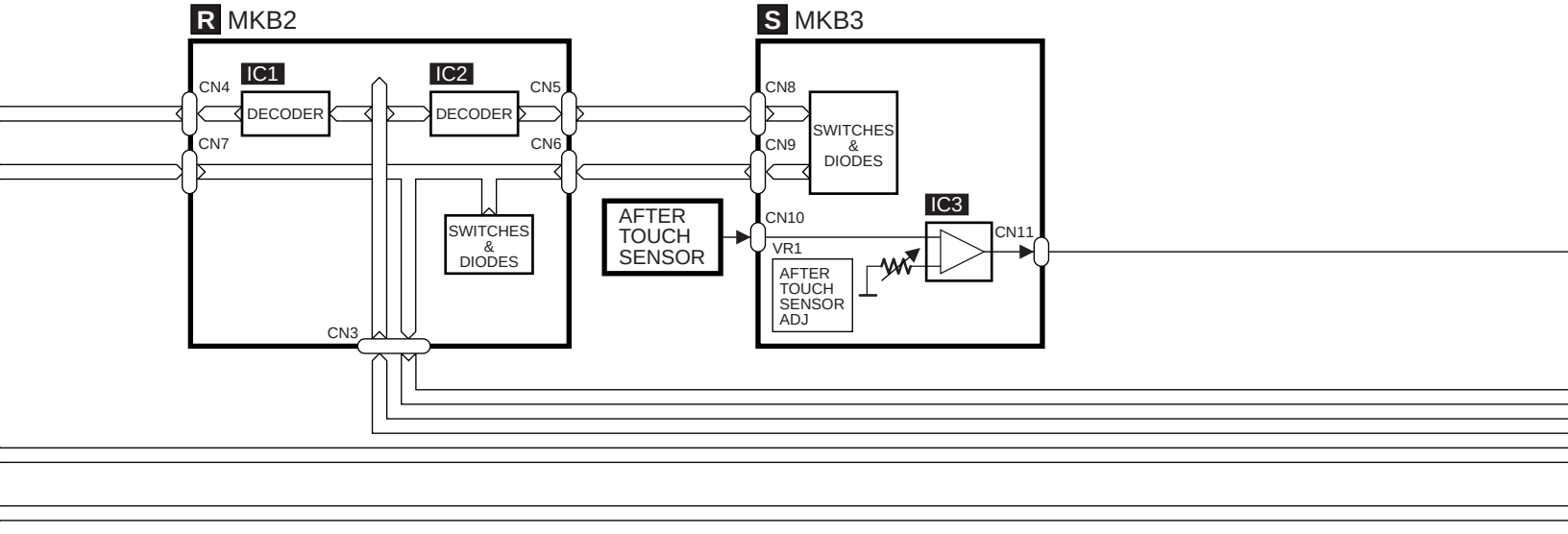

Tone Signal
Control Signal
FDD
FLOPPY DISC DRIVE
LCD
LCD
LCD BACK LIGHT
K INV
CN2
CN3
T1
TRANSFORMER
Q1,2
CN1
H CNB(2/2)
CN34
FROM CN31(15) V-COM
CN33
HDD
HARD DISC DRIVE
B FAJ(2/2)
CN7
CN8
IP4
CN4
CN2
A MAIN
CN103
CN102
+5D
CN105
ADDRESS BUS
IC101
A1-A3
D16-D23
FLOPPY DISC CONTROLLER
IC106
D16-D23
BUS TRANSCEIVER
D16-D23
IC108
A0-A21
COLOR LCD CONTROLLER
MA0-MA11
D16-D31
MD0-MD15
IC110
4M BIT DRAM
MA0-MA11
MD0-MD15
IC302
DA0-DA7
D-FLIP FLOP
D16-D23
IC301, IC303
DD0-DD15
BUS TRANSCEIVER
D16-D31
IC305
DA0-DA9,DA13
SDRAM
DD16-DD31
DATA BUS
IC9
D16-D31
DRAM
A2-A13
IC10
D0-D15
DRAM
A2-A13
IC13
D16-D31
PROGRAMMED MASK ROM
A2-A21
IC14
D0-D15
PROGRAMMED MASK ROM
A2-A21
IC11
D16-D31
PROGRAMMED FLASH MEMORY
A2-A21
IC12
D0-D15
PROGRAMMED FLASH MEMORY
A2-A21
IC15
D16-D31
RHYTHM DATA ROM
A1-A21
IC18
D16-D31
CUSTOM RHYTHM FLASH MEMORY
A1-A20
IC20
D16-D31
SRAM
A1-A17
ADDRESS BUS
DATA BUS
IC205
WD0-WD15
64M BIT MASK ROM
WAY0-WAY21
IC207
WD0-WD15
64M BIT MASK ROM
WAY0-WAY21
IC209
WD0-WD15
64M BIT MASK ROM
WAY0-WAY21
IC206
WD0-WD15
64M BIT MASK ROM
WAX0-WAX21
IC208
WD0-WD15
64M BIT MASK ROM
WAX0-WAX21
IC210
WD0-WD15
64M BIT MASK ROM
WAX0-WAX21
ADDRESS BUS
ADDRESS BUS

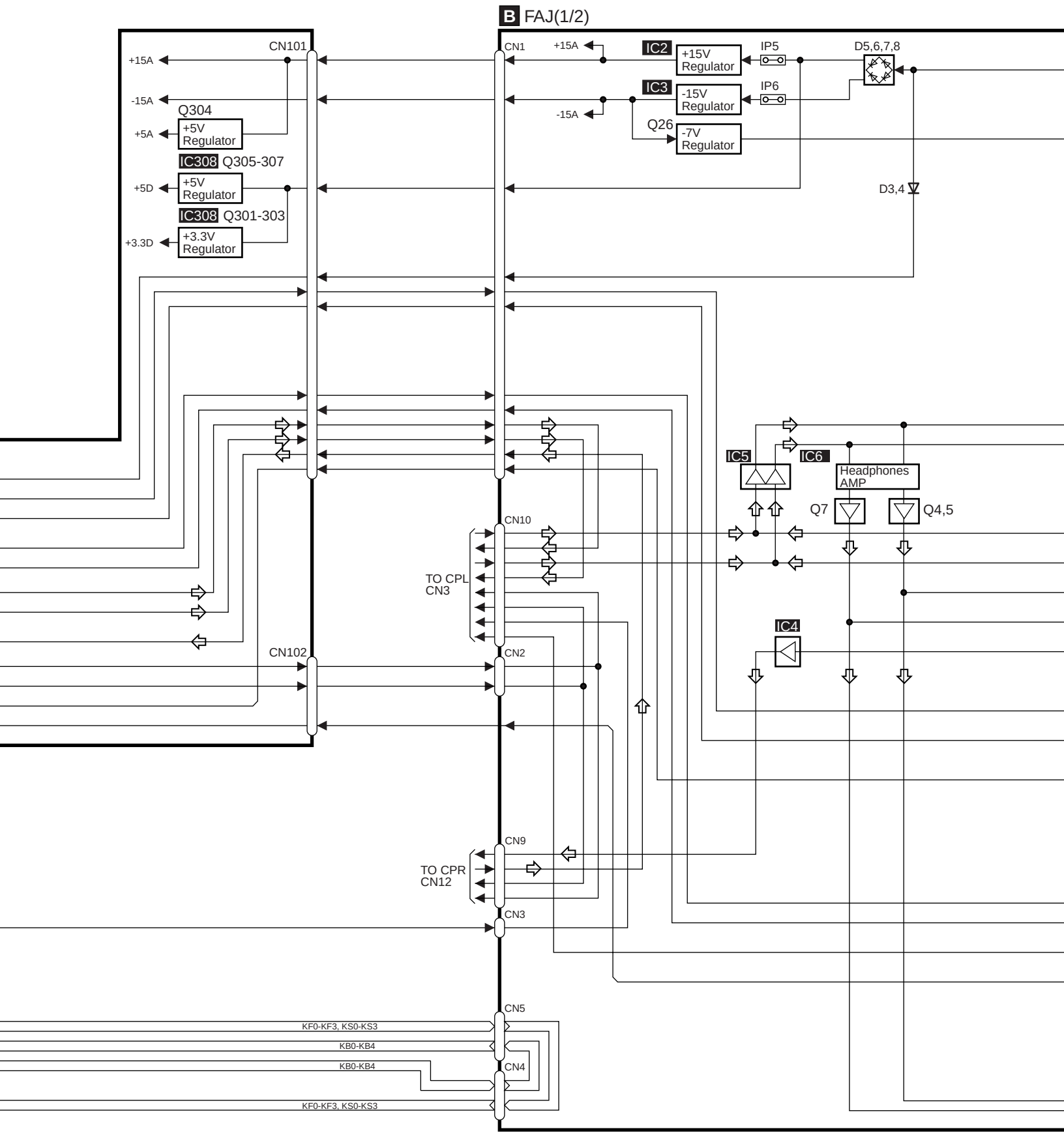

M LCDR
G CPR
F CPC
SWITCHES & LEDS
CN1
CN11
CN10
CN20
SWITCHES & LEDS
SWITCHES & LEDS
Q20-25
IC12,13
LED DRIVER
BUFFER
VR10
CN12
MIC VOLUME
IC11
DECORDER
I ROT
IC10
TO FAJ CN9
SW0-SW7
CM0-CM2
SEG0-SEG12
RST
8 BIT MICROCOMPUTER
ROTA
DATA, SCK
ROTB
CN21
CN40
SW500 ENCODER SWITCH

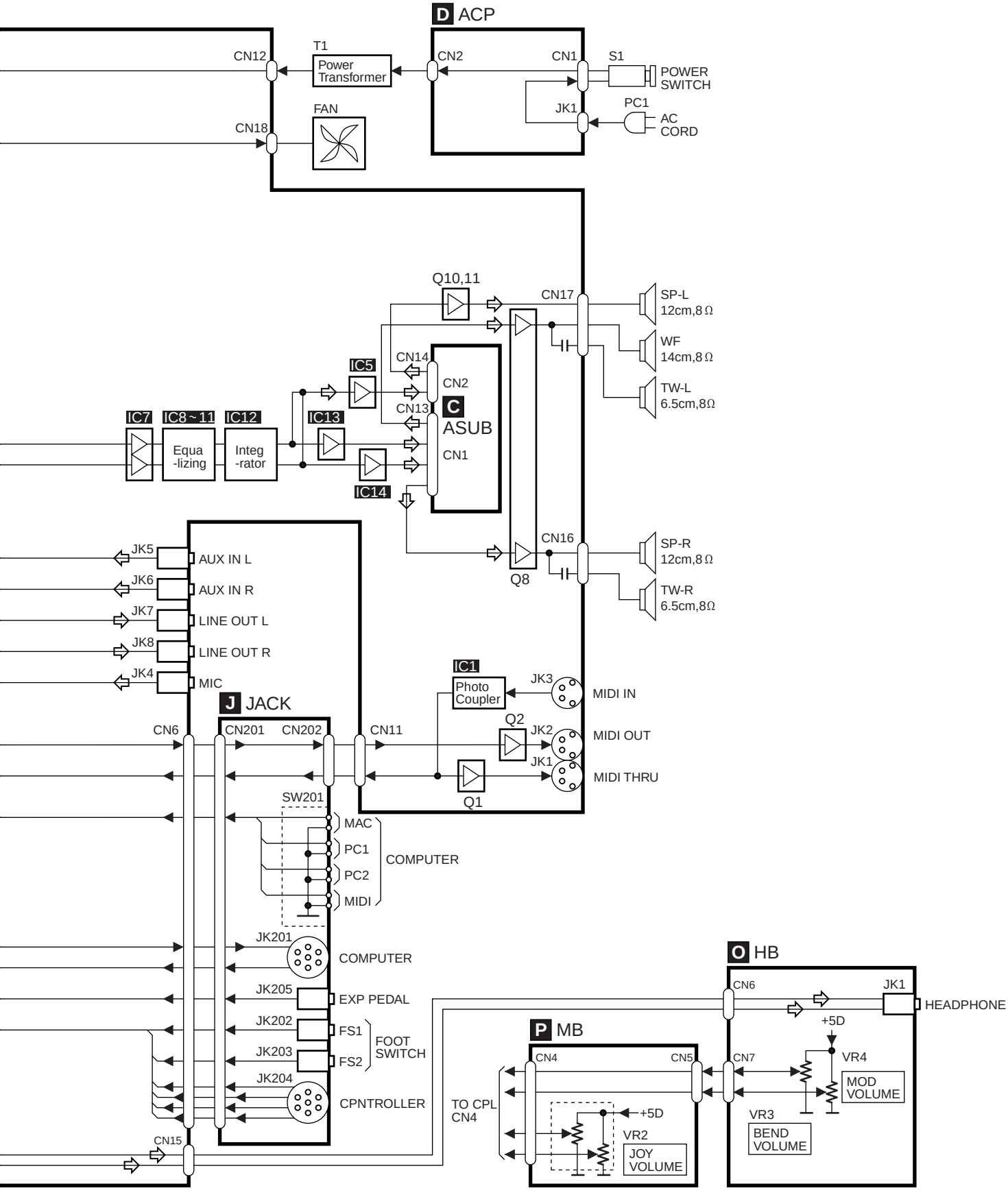

IC4
SNS
MIDI TX
MIDI RX
A0-A25
IC107
DRIVER
RECEIVER
PC TX
PC RX
32BIT MICRO CONTROLLER
ADDRESS BUS
IC306
IC304
DA0-DA9,DA13
DA0-DA23
SDRAM
DIGITAL SIGNAL PROCESSOR
DD0-DD15
DD0-DD31
SDI0-SDI3
SDO0-SDO3
RST
DATA, SCK
D0-D31
DATA BUS
IC213
IC109
SDI0-SDI3
SDO0-SDO3
D16-D31
D16-D31
16BIT BUS BUFFER
Q MKB1
CN1
CN2
SWITCHES & DIODES
A1-A3
WD0-DD15
TONE GENERATOR LSI
SDO0
SDI
CN103
KB0-KB4
KB0-KB4
IC202
WAX0-WAX24
WAY0-WAY24
KF0-KF3, KS0-KS3
BUFFER
KF0-KF3, KS0-KS3

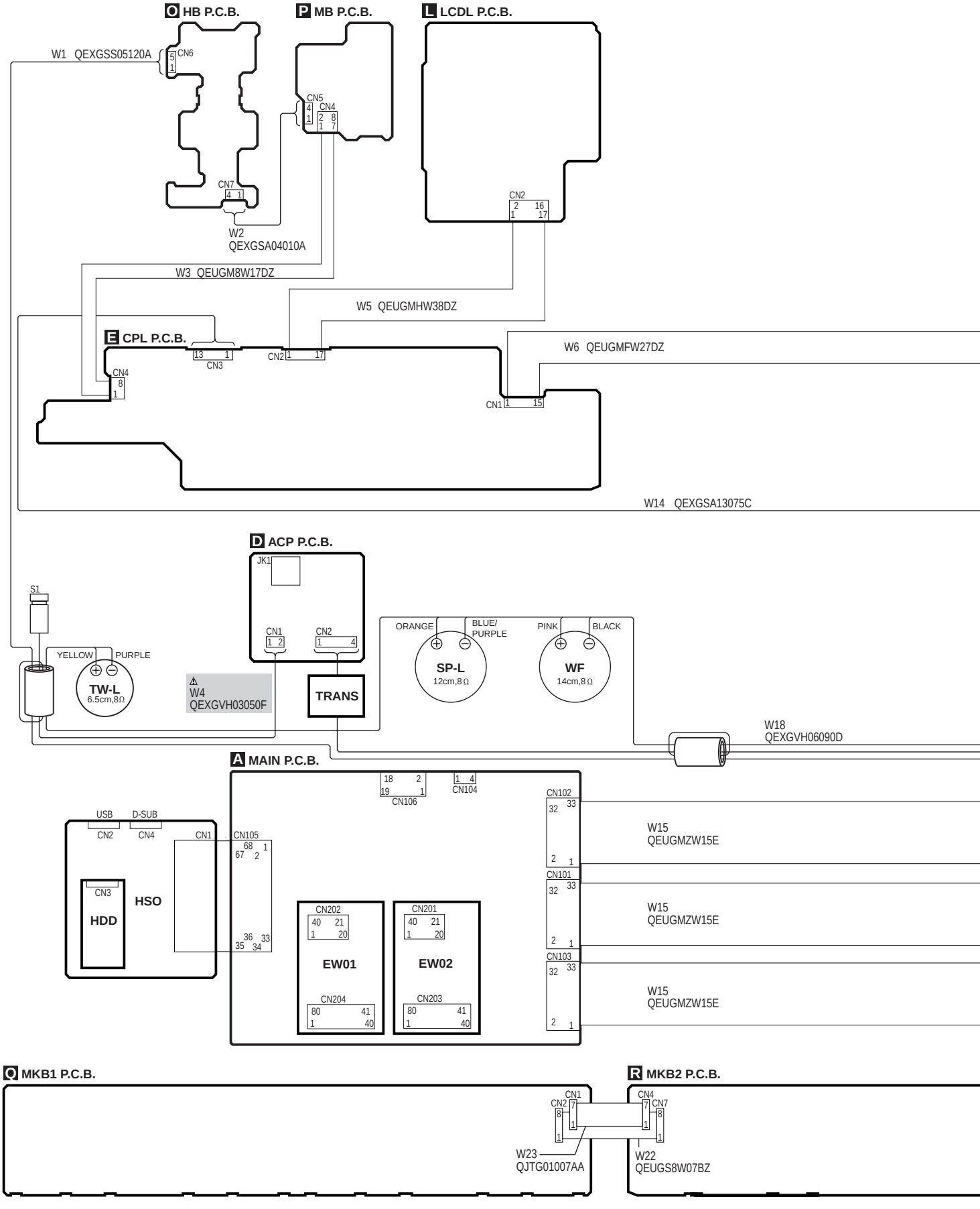

L LCDL
E CPL
H CNB(1/2)
N LCDC
SWITCHES & LEDS
SWITCHES & LEDS
CN2
CN2
CN1
CN32
CN31
CN3
SWITCHES & LEDS
Q1-5
LED DRIVE
IC2
Q6-8
BUFFER
TO CN34(19) V-COM
+3.3D
VR1
V-COM VOLUME
VR2
CN3
MAIN VOLUME
IC1
SW0-SW7
CM0-CM4
SEG0-SEG9
CN4
AD1
AD3
AD4
AD5
AD6
TO MB CN4
TO FAJ CN10
8 BIT MICROCOMPUTER
RST
DATA, SCK
AD0
AD2
VR1
APC/SEQUENSER VOLUME
+5D

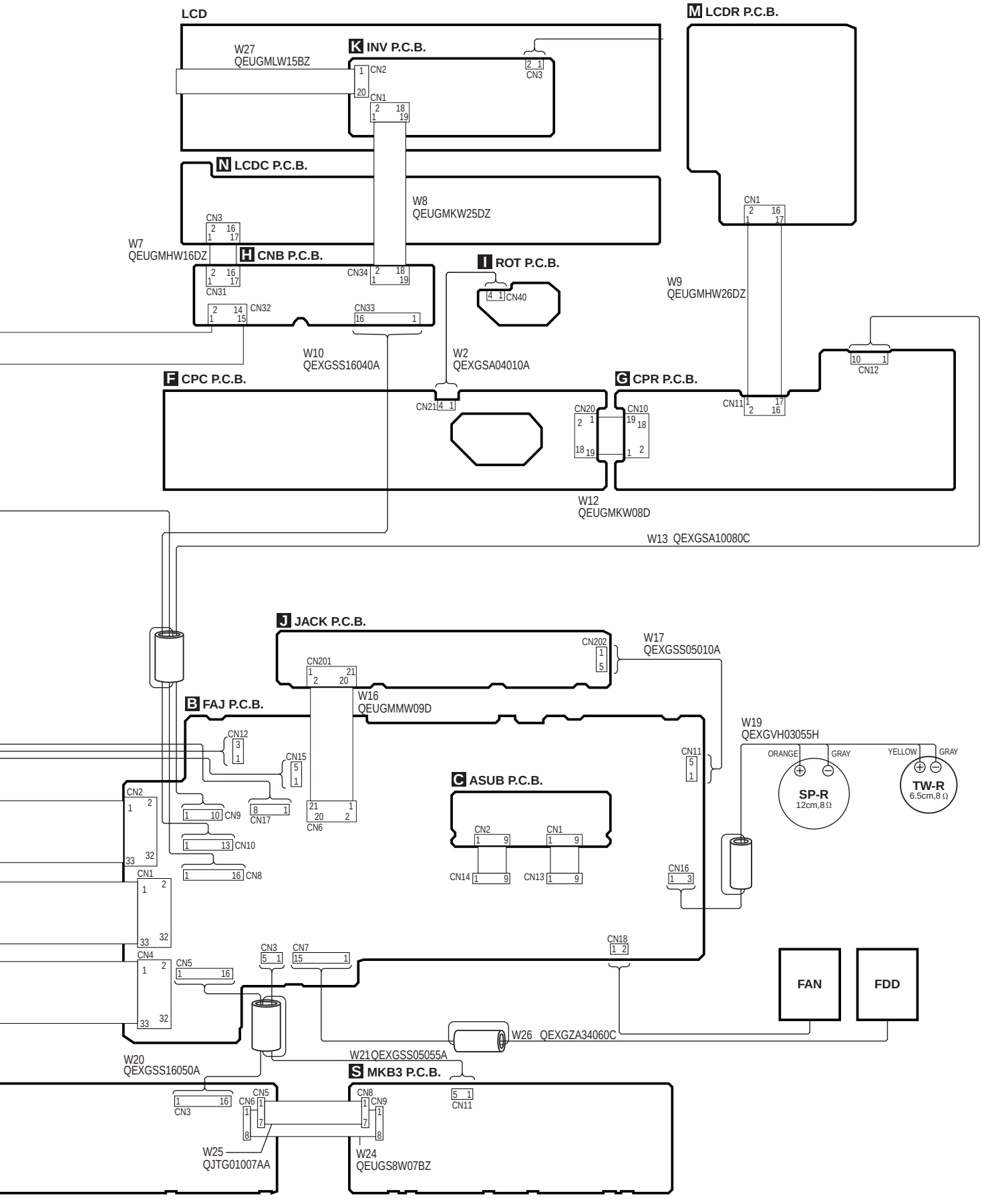

IC307
D/A CONVERTER
IC310
IC309
A/D CONVERTER


R MKB2
S MKB3
IC1
IC2
CN4
DECODER
DECODER
CN5
CN7
CN6
SWITCHES & DIODES
CN3
AFTER TOUCH SENSOR
CN8
CN9
SWITCHES & DIODES
IC3
CN10
VR1
CN11
AFTER TOUCH SENSOR ADJ


B FAJ(1/2)
CN101
+15A
-15A
Q304
+5A
+5V Regulator
IC308 Q305-307
+5D
+5V Regulator
IC308 Q301-303
+3.3D
+3.3V Regulator
CN1
+15A
-15A
IC2
+15V Regulator
IC3
-15V Regulator
Q26
-7V Regulator
IP5
IP6
D5,6,7,8
D3,4
IC5
IC6
Headphones AMP
Q7
Q4,5
IC4
CN10
TO CPL CN3
CN102
CN2
CN9
TO CPR CN12
CN3
CN5
KF0-KF3, KS0-KS3
KB0-KB4
KB0-KB4
CN4
KF0-KF3, KS0-KS3


D ACP
CN12
T1
Power Transformer
CN2
CN1
S1
POWER SWITCH
JK1
PC1
AC CORD
CN18
FAN
Q10,11
CN17
SP-L 12cm,8Ω
WF 14cm,8Ω
TW-L 6.5cm,8Ω
IC5
CN14
CN2
C ASUB
CN13
CN1
IC7
IC8~11
IC12
IC13
IC14
Equa -lizing
Integ -rator
CN16
SP-R 12cm,8Ω
TW-R 6.5cm,8Ω
Q8
JK5
AUX IN L
JK6
AUX IN R
JK7
LINE OUT L
JK8
LINE OUT R
JK4
MIC
IC1
Photo Coupler
JK3
MIDI IN
J JACK
CN6
CN201
CN202
CN11
Q2
JK2
MIDI OUT
JK1
MIDI THRU
Q1
SW201
MAC
PC1
PC2
MIDI
COMPUTER
JK201
COMPUTER
JK205
EXP PEDAL
JK202
FS1
JK203
FS2
FOOT SWITCH
JK204
CPNTROLLER
CN15
O HB
CN6
JK1
HEADPHONE
+5D
CN7
VR4
MOD VOLUME
VR3
BEND VOLUME
P MB
CN4
CN5
TO CPL CN4
+5D
VR2
JOY VOLUME


O HB P.C.B.
P MB P.C.B.
L LCDL P.C.B.
W1 QEXGSS05120A
CN6
CN7
CN5
CN4
CN2
W2
QEXGSA04010A
W3 QEUGM8W17DZ
W5 QEUGMHW38DZ
E CPL P.C.B.
CN3
CN1
W6 QEUGMFW27DZ
W14 QEXGSA13075C
D ACP P.C.B.
JK1
S1
YELLOW
PURPLE
TW-L
6.5cm,8Ω
W4
QEXGVH03050F
TRANS
ORANGE
BLUE/
PURPLE
SP-L
12cm,8Ω
PINK
BLACK
WF
14cm,8Ω
W18
QEXGVH06090D
A MAIN P.C.B.
CN106
CN104
CN102
CN101
CN103
W15
QEUGMZW15E
USB
D-SUB
CN105
HSO
HDD
CN202
CN201
EW01
EW02
CN204
CN203
Q MKB1 P.C.B.
R MKB2 P.C.B.
W23
QJTG01007AA
W22
QEUGS8W07BZ


LCD
M LCDR P.C.B.
W27
QEUGMLW15BZ
K INV P.C.B.
CN2
CN1
CN3
N LCDC P.C.B.
W8
QEUGMKW25DZ
CN3
W7
QEUGMHW16DZ
H CNB P.C.B.
CN34
CN31
CN32
CN33
I ROT P.C.B.
CN40
W9
QEUGMHW26DZ
CN1
W10
QEXGSS16040A
W2
QEXGSA04010A
CN12
F CPC P.C.B.
G CPR P.C.B.
CN21
CN20
CN10
CN11
W12
QEUGMKW08D
W13 QEXGSA10080C
J JACK P.C.B.
CN202
CN201
W17
QEXGSS05010A
W16
QEUGMMW09D
B FAJ P.C.B.
CN12
CN15
CN2
CN9
CN17
CN6
CN10
CN8
CN1
CN4
CN5
CN3
CN7
C ASUB P.C.B.
CN14
CN13
CN11
CN16
W19
QEXGVH03055H
ORANGE
GRAY
YELLOW
GRAY
SP-R
12cm,8Ω
TW-R
6.5cm,8Ω
CN18
FAN
FDD
W26 QEXGZA34060C
W21QEXGSS05055A
W20
QEXGSS16050A
S MKB3 P.C.B.
CN3
CN5
CN6
CN8
CN9
CN11
W25
QJTG01007AA
W24
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